

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:

Applicant: : Thomas J. Perkowski  
Serial No. : 09/641,908  
Filing Date : August 18, 2000  
Title of Invention : INTERNET-BASED METHOD OF AND SYSTEM FOR  
MANAGING CONSUMER PRODUCT INFORMATION USING  
AN EDI-ENABLED UPN/URL DATABASE MANAGEMENT  
SUBSYSTEM WHICH IS...  
Examiner : Yogesh Garg  
Group Art Unit : 3625  
Attorney Docket No. : 100-040USA000

Honorable Commissioner of Patents  
and Trademarks  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.97**

Sir:

In order to fulfill Applicant's continuing obligation of candor and good faith as set forth in 37 C.F.R. 1.56, Applicant submits herewith an Information Disclosure Statement prepared in accordance with 37 C.F.R Sections 1.97, 1.98 and 1.99.

The disclosures enclosed herewith are as follows:

**U.S. PUBLICATIONS**

<u>NUMBER</u>	<u>FILING DATE</u>	<u>TITLE</u>
6,448,979 B1	January 25, 1999	PRINTED MEDIUM ACTIVATED INTERACTIVE COMMUNICATION OF MULTIMEDIA INFORMATION, INCLUDING ADVERTISING
6,430,554 B1	January 25, 2000	INTERACTIVE SYSTEM FOR INVESTIGATING PRODUCTS ON A NETWORK
6,317,761 B1	July 13, 1999	TECHNIQUE FOR IMPLEMENTING BROWSER-INITIATED USER- TRANSPARENT ADVERTISING AND FOR INTERSTITIALLY DISPLAYING AN ADVERTISEMENT, SO DISTRIBUTED,

		THROUGH A WEB BROWSER IN RESPONSE TO A USER CLICK-STREAM
6,314,457	April 21, 1999	METHOD FOR MANAGING PRINTED MEDIUM ACTIVATED REVENUE SHARING DOMAIN NAME SYSTEM SCHEMAS
6,314,451 B1	July 13, 1999	AD CONTROLLER FOR USE IN IMPLEMENTING USER-TRANSPARENT NETWORK-DISTRIBUTED ADVERTISING AND FOR INTERSTITIALLY DISPLAYING AN ADVERTISEMENT SO DISTRIBUTED
6,213,394	June 14, 1999	VISUAL SYSTEM FOR, AND METHOD OF, DISPLAYING GRAPHICS AND ALPHANUMERIC INFORMATION
6,199,048 B1	January 15, 1999	SYSTEM AND METHOD FOR AUTOMATIC ACCESS OF A REMOTE COMPUTER OVER A NETWORK
6,157,946	February 26, 1997	COMMUNICATION SYSTEM CAPABLE OF PROVIDING USER WITH PICTURE MEETING CHARACTERISTICS OF USER AND TERMINAL EQUIPMENT AND INFORMATION PROVIDING DEVICE USED FOR THE SAME
6,152,369	August 4, 1997	SYSTEM FOR STORING, ACCESSING AND DISPLAYING HTML ENCODED
6,154,738	May 21, 1999	METHODS AND APPARATUS FOR DISSEMINATING PRODUCT INFORMATION VIA THE INTERNET USING UNIVERSAL PRODUCT CODES
6,141,666	January 21, 1997	METHOD AND SYSTEM FOR CUSTOMIZING MARKETING SERVICES ON NETWORKS COMMUNICATING WITH HYPERTEXT TAGGING CONVENTIONS
6,138,151	September 26, 1997	NET WORK NAVIGATION METHOD FOR PRINTED ARTICLES BY USING EMBEDDED CODES FOR ARTICLE- ASSOCIATED LINKS

6,134,548	November 19, 1998	SYSTEM METHOD AND ARTICLE OF MANUFACTURE FOR ADVANCED MOBILE BARGAIN SHOPPING
6,125,388	December 1, 1897	SYSTEM FOR TRANSPORTING INFORMATION OBJECTS BETWEEN A USER STATION AND MULTIPLE REMOTE SOURCES BASED UPON USER MODIFIABLE OBJECT MANIFEST STORED IN THE USER STATION
6,119,165	November 17, 1997	CONTROLLED DISTRIBUTION OF APPLICATION PROGRAMS IN A COMPUTER NETWORK
6,108,656	May 11, 1999	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH MACHINE-READABLE CODES ON PRINTED DOCUMENTS
6,094,673	January 16, 1998	METHOD AND APPARATUS FOR GENERATING AGENT SCRIPTS
6,091,411	December 7, 1998	DYNAMICALLY UPDATING THEMES FOR AN OPERATING SYSTEM SHELL
6,081,827	June 16, 1997	NETWORK NAVIGATION METHODS AND SYSTEMS USING AN ARTICLE OF MAIL
6,078,848	June 1, 1998	BROWSER KIOSK SYSTEM
6,064,979	November 19, 1996	METHOD OF AND SYSTEM FOR FINDING AND SERVING CONSUMER PRODUCT RELATED INFORMATION OVER THE INTERNET USING MANUFACTURER IDENTIFICATION NUMBERS
6,065,024	March 24, 1997	EMBEDDED HTML DOCUMENTS DOWNLOADED AND DISPLAYED SIMULTANEOUSLY WITH PRIMARY HTML DOCUMENT
6,061,659	June 3, 1897	SYSTEM AND METHOD FOR INTEGRATING A MESSAGE INTO A GRAPHICAL ENVIRONMENT

6,045,048	April 4, 2000	SYSTEM AND METHOD FOR COMPOSING MENUS OF URL-ENCODED BAR CODE SYMBOLS WHILE SURFING THE INTERNET USING AN INTERNET BROWSER PROGRAM
6,044,218	January 31, 1997	SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR CREATING A LIVE APPLICATION OR APPLET DEVELOPMENT ENVIRONMENT
6,038,545	March 17, 1997	SYSTEMS, METHODS AND COMPUTER PROGRAM PRODUCTS FOR GENERATING DIGITAL MULTIMEDIA STORE DISPLAYS AND MENU BOARDS
6,035,332	October 6, 1997	METHOD FOR MONITORING USER INTERACTIONS WITH WEB PAGES FROM WEB SERVER USING DATA AND COMMAND LISTS FOR MAINTAINING INFORMATION VISITED AND ISSUED BY PARTICIPANTS
6,032,195	July 31, 1998	METHOD, SYSTEM, AND ARTICLE FOR NAVIGATING AN ELECTRONIC NETWORK AND PERFORMING A TASK USING A DESTINATION-SPECIFIC SOFTWARE AGENT
6,027,024	July 3, 1997	HAND-HELD PORTABLE WWW ACCESS TERMINAL WITH VISUAL DISPLAY PANEL AND GUI-BASED WWW BROWSER PROGRAM INTEGRATED WITH BAR CODE SYMBOL READER
6,011,537	January 27, 1998	SYSTEM FOR DELIVERING AND SIMULTANEOUSLY DISPLAYING PRIMARY AND SECONDARY INFORMATION DURING INTERSTITIAL SPACE
6,012,083	September 24, 1996	METHOD AND APPARATUS FOR DOCUMENT PROCESSING USING AGENTS TO PROCESS TRANSACTIONS CREATED BASED ON DOCUMENT CONTENT

6,012,102	April 2, 1996	SYSTEM USING MACHINE-READABLE PRINTED SYMBOLS CREATED FROM ENCODED DATA RESOURCE SPECIFIERS TO ESTABLISH CONNECTION TO DATA RESOURCE ON DATA COMMUNICATIONS NETWORK
08/691,263	August 2, 1996	HAND-HELD OPTICAL READER TERMINAL WITH ERGONOMIC DESIGN
6,009,410	October 16, 1997	METHOD AND SYSTEM FOR PRESENTING CUSTOMIZED ADVERTISING TO A USER ON THE WORLD WIDE WEB
6,009,407	February 27, 1998	INTEGRATED MARKETING AND OPERATIONS DECISIONS-MAKING UNDER MULTI-BRAND COMPETITION
5,999,912	May 1, 1997	DYNAMIC ADVERTISING SCHEDULING, DISPLAY AND TRACKING
5,999,914	October 16, 1996	ELECTRONIC PROMOTION SYSTEM FOR AN ELECTRONIC MERCHANT SYSTEM
5,996,007	June 16, 1997	METHOD FOR PROVIDING SELECTED CONTENT DURING WAITING TIME OF AN INTERNET SESSION
5,995,105	October 4, 1996	METHODS AND SYSTEMS FOR PROVIDING A RESOURCE IN AN ELECTRONIC NETWORK
5,992,752	June 4, 1997	INTERNET-BASED SYSTEM FOR ENABLING INFORMATON-RELATED TRANSACTIONS OVER THE INTERNET USING JAVA-ENABLED INTERNET TERMINALS PROVIDED WITH BAR CODE SYMBOL READERS FOR READING JAVA-APPLET ENCODED BAR CODE SYMBOLS
5,979,757	December 20, 1996	METHOD AND SYSTEM FOR PRESENTING ITEM INFORMATION USING A PORTABLE DATA TERMINAL

5,986,651	November 7, 1996	METHOD SYSTEM, AND ARTICLE OF MANUFACTURE FOR PRODUCING A NETWORK NAVIGATION DEVICE
5,978,773	October 3, 1995	SYSTEM AND METHOD FOR USING AN ORDINARY ARTICLE OF COMMERCE TO ACCESS A REMOTE COMPUTER
5,971,277	August 12, 1998	MECHANISM FOR RETRIEVING INFORMATION USING DATA ENCODED ON AN OBJECT
5,964,836	September 11, 1997	APPARATUS, METHODS AND COMPUTER PROGRAM PRODUCTS FOR MANAGING WEB-PAGE-EMBEDDED SESSIONS WITH A HOST-BASED APPLICATION
5,966,696	April 14, 1998	SYSTEM FOR TRACKING CONSUMER EXPOSURE AND FOR EXPOSING CONSUMERS TO DIFFERENT ADVERTISEMENTS
5,963,916	October 31, 1996	NETWORK APPARATUS AND METHOD FOR PREVIEW OF MUSIC PRODUCTS AND COMPILATION OF MARKET DATA
5,959,623	December 8, 1995	SYSTEM AND METHOD FOR DISPLAYING USER SELECTED SET OF ADVERTISEMENTS
5,960,411	September 12, 1997	METHOD AND SYSTEM FOR PLACING A PURCHASE ORDER VIA A COMMUNICATIONS NETWORK
5,957,695	February 15, 1996	STRUCTURE AND METHOD FOR DISPLAYING COMMERCIALS AND SENDING PURCHASE ORDERS BY COMPUTER
5,948,061	October 29, 1996	METHOD OF DELIVERY, TARGETING, AND MEASURING ADVERTISING OVER NETWORKS
5,950,173	May 12, 1997	SYSTEM AND METHOD FOR DELIVERING CONSUMER PRODUCT RELATED INFORMATION TO CONSUMERS WITHIN RETAIL

		ENVIRONMENTS USING INTERNET-BASED INFORMATION SERVERS AND SALES AGENTS
5,946,646	March 29, 1995	INTERACTIVE ADVERTISING SYSTEM AND DEVICE
5,940,595	September 23, 1996	ELECTRONIC NETWORK NAVIGATOR DEVICE AND METHOD FOR LINKING TO AN ELECTRONIC ADDRESS THEREWITH
5,940,074	November 22, 1996	REMOTE UPGRADE OF SOFTWARE OVER A NETWORK
5,938,726	October 17, 1996	APPARATUS FOR READING AN ELECTRONIC NETWORK NAVIGATION DEVICE AND A PERIPHERAL FOR USE THEREWITH
5,937,390	June 28, 1996	ON-LINE ADVERTISING SYSTEM AND ITS METHOD
5,937,392	July 28, 1997	BANNER ADVERTISING DISPLAY SYSTEM AND METHOD WITH FREQUENCY OF ADVERTISEMENT CONTROL
5,933,829	November 8, 1997	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH SECURE MACHINE-READABLE CODES ON PRINTED DOCUMENTS
5,930,767	May 28, 1997	TRANSACTION METHODS SYSTEMS AND DEVICES
5,933,811	August 20, 1996	SYSTEM AND METHOD FOR DELIVERING CUSTOMIZED ADVERTISEMENTS WITHIN INTERACTIVE COMMUNICATION SYSTEMS
5,918,214	October 25, 1996	SYSTEM AND METHOD FOR FINDING PRODUCT AND SERVICE RELATED INFORMATION ON THE INTERNET
5,918,213	December 22, 1995	SYSTEM AND METHOD FOR AUTOMATED REMOTE PREVIEWING

AND PURCHASING OF MUSIC, VIDEO,  
SOFTWARE, AND OTHER MULTIMEDIA  
PRODUCTS

5,913,040	August 22, 1995	METHOD AND APPARATUS FOR TRANSMITTING AND DISPLAYING INFORMATION BETWEEN A REMOTE NETWORK AND AN LOCAL COMPUTER
5,913,210	March 27, 1998	METHODS AND APPARATUS FOR DISSEMINATING PRODUCT INFORMATON VIA THE INTERNET
5,905,251	July 11, 1997	HAND-HELD PORTABLE WWW ACCESS TERMINAL WITH VISUAL DISPLAY PANEL AND GUI-BASED WWW BROWSER PROGRAM INTEGRATED WITH BAR CODE SYMBOL READER IN A HAND-SUPPORTABLE HOUSING
5,905,248	August 22, 1997	SYSTEM AND METHOD FOR CARRYING OUT INFORMATION-RELATED TRANSACTIONS USING WEB DOCUMENTS EMBODYING TRANSACTION ENABLING APPLETS AUTOMATICALLY LAUNCHED AND EXECUTED IN RESPONSE TO READING URL-ENCODED SYMBOLS POINTING THERETO
5,903,729	July 10, 1997	METHOD, SYSTEM, AND ARTICLE OF MANUFACTURE FOR NAVIGATING TO A RESOURCE IN AN ELECTRONIC NETWORK
5,902,353	July 10, 1997	METHOD, SYSTEM, AND ARTICLE OF MANUFACTURE FOR NAVIGATING TO A RESOURCE IN AN ELECTRONIC NETWORK
5,897,622	October 16, 1996	ELECTRONIC SHOPPING AND MERCHANDISING SYSTEM
5,890,175	September 25, 1996	DYNAMIC GENERATION AND DISPLAY OF CATALOGS
5,869,819	April 7, 1997	INTERNET-BASED SYSTEM AND METHOD FOR TRACKING OBJECTS



		BEARING URL-ENCODED BAR CODE SYMBOLS
5,864,823	June 25, 1997	INTEGRATED VIRTUAL TELECOMMUNICATION SYSTEM FOR E-COMMERCE
5,854,897	December 27, 1996	NETWORK COMMUNICATIONS MARKETING SYSTEM
5,841,978	July 27, 1995	NETWORK LINKING METHOD USING STEGANOGRAPHICALLY EMBEDDED DATA OBJECTS
5,804,803	April 2, 1996	MECHANISM FOR RETRIEVING INFORMATION USING DATA ENCODED ON AN OBJECT
5,761,071	July 27, 1996	BROWSER KIOSK SYSTEM
5,742,768	July 16, 1996	SYSTEM AND METHOD FOR PROVIDING AND DISPLAYING A WEB PAGE HAVING AN EMBEDDED MENU
5,740,549	June 12, 1995	INFORMATION AND ADVERTISING DISTRIBUTION SYSTEM AND METHOD
5,737,739	December 19, 1995	SYSTEM THAT ACCESSES A KNOWLEDGE BASE BY MARKUP LANGUAGE TAGS
5,737,619	September 9, 1996	WORLD WIDE WEB BROWSING WITH CONTENT DELIVERY OVER AN IDLE CONNECTION AND INTERSTITIAL CONTENT DISPLAY
5,724,521	November 3, 1994	METHOD AND APPARATUS FOR PROVIDING ELECTRONIC ADVERTISEMENTS TO END USERS IN A CONSUMER BEST-FIT PRICING MANNER
5,721,827	October 2, 1996	SYSTEM FOR ELECTRICALLY DISTRIBUTING PERSONALIZED INFORMATION
5,715,444	October 14, 1994	METHOD AND SYSTEM FOR EXECUTING A GUIDED PARAMETRIC

# SEARCH.

5,640,193	August 15, 1994	MULTIMEDIA SERVICE ACCESS BY READING MARKS ON AN OBJECT
5,635,694	September 27, 1993	SYSTEM AND METHOD FOR EMBEDDING MACHINE CODED DESTINATION INFORMATION INTO A POSTAL MARK
5,612,527	March 31, 1995	DISCOUNT OFFER REDEMPTION SYSTEM AND METHOD
5,594,509	June 22, 1993	METHOD AND APPARATUS FOR AUDIO-VISUAL INTERFACE FOR THE DISPLAY OF MULTIPLE LEVELS OF INFORMATION ON A DISPLAY
5,592,378	August 19, 1994	COMPUTERIZED ORDER ENTRY SYSTEM AND METHOD.
5,583,560	June 22, 1993	METHOD AND APPARATUS FOR AUDIO-VISUAL INTERFACE FOR THE SELECTIVE DISPLAY OF LISTING INFORMATION ON A DISPLAY
5,572,643	October 19, 1995	WEB BROWSER WITH DYNAMIC DISPLAY OF INFORMATION OBJECTS DURING LINKING
5,532,735	April 29, 1994	METHOD OF ADVERTISEMENT SELECTION FOR INTERACTIVE SERVICE
5,528,490	April 10, 1992	ELECTRONIC CATALOG SYSTEM AND METHOD
5,524,195	March 4, 1994	GRAPHICAL USER INTERFACE FOR INTERACTIVE TELEVISION WITH AN ANIMATED AGENT
5,448,046	August 18, 1994	ARRANGEMENT FOR AND METHOD OF EXPEDITING COMMERCIAL PRODUCT TRANSACTIONS AT A POINT-OF-SALE SITE
5,398,336	July 16, 1993	OBJECT-ORIENTED ARCHITECTURE FOR FACTORY FLOOR MANAGEMENT

5,355,472	November 19, 1990	SYSTEM FOR SUBSTITUTING TABS FOR NON-EDITABLE DATA SETS IN HYPERTEXT DOCUMENTS AND UPDATING WEB FILES CONTAINING LINKS BETWEEN DATA SETS CORRESPONDING TO CHANGES MADE TO THE TAGS
5,333,237	June 8, 1992	HYPERMEDIA STRUCTURED KNOWLEDGE BASE SYSTEM
5,319,542	September 27, 1990	SYSTEM FOR ORDERING ITEMS USING AN ELECTRONIC CATALOGUE
5,307,456	January 28, 1992	INTEGRATED MULTI-MEDIA PRODUCTION AND AUTHORING SYSTEM
5,288,976	July 15, 1991	BAR CODE USE IN INFORMATION, TRANSACTIONAL AND OTHER SYSTEM AND SERVICE APPLICATIONS
5,264,822	February 22, 1991	SYSTEM FOR TRANSMITTING AUDIO ADVERTISING MESSAGES TO SHOPPING CARTS MOVING THROUGH SPATIALLY DEFINED TRANSMISSION ZONES ARRANGED IN A STORE
5,029,104	February 21, 1989	PRESTAGING OBJECTS IN A DISTRIBUTED ENVIRONMENT
4,841,132	July 16, 1987	PROGRAM RECORDING SCHEDULING APPARATUS USING AN OPTICAL READER
4,775,935	September 22, 1986	VIDEO MERCHANDISING SYSTEM WITH VARIABLE AND ADOPTIVE PRODUCT SEQUENCE PRESENTATION ORDER
4,654,482	November 7, 1984	HOME MERCHANDISE ORDERING TELECOMMUNICATIONS TERMINAL

#### **FOREIGN PUBLICATIONS**

<u>NUMBER</u>	<u>PUBLICATION DATE</u>	<u>TITLE</u>
WO 01/39001 A1	May 31, 2001	SYSTEM AND METHOD FOR LINKING ONLINE RESOIURCES TO PRINT MEDIA AND AUGHORING TOOL FOR SAME
WO 01/15021 A2	March 1, 2001	METHOD AND APPARATUS FOR ESTABLISHING CONNECTION TO A REMOTE LOCATION ON A COMPUTER NETWORK
WO 01/15035 A2	March 1, 2001	METHOD AND APPARATUS FOR COMPLETING, SECURING AND CONDUCTING AN E-COMMERCE TRANSACTION
WO 01/15019 A2	March 1, 2001	METHOD AND APPARATUS FOR ACCESSING A REMOTE LOCATION BY SCANNING AN OPTICAL CODE
WO 01/01586 A3	January 4, 2001	IMPROVED SYSTEM FOR SEAMLESSLEY INTEGRATING MULTIPLE NEW AND EXISTING PRODUCT, SERVICE, ENTERTAINMENT, PROGRAMMING AND INFORMATION DISTRIBUTION CHANNELS INCLUDINGPHYSICAL AND ELECTRONIC MALLS
WO 00/65509	November 2, 2000	SYSTEM AND METHOD FOR PROVIDING ELECTRONIC INFORMATION UPON RECEIPT OF A SCANNED BAR CODE
WO 00/70525	November 23, 2000	PRINTED MEDIUM ACTIVATED INTERACTIVE COMMUNICATION
WO 00/63780	October 26, 2000	METHOD FOR MANAGING PRINTED MEDIUM ACTIVATED REVENUE SHARING DOMAIN NAME SYSTEM SCHEMAS
WO 00/50844	August 31, 2000	INTERNET BASED GEOGRAPHIC LOCATION REFERENCING SYSTEM AND METHOD
WO 00/43862	July 27, 2000	PRINTED MEDIUM ACTIVATED

		INTERACTIVE COMMUNICATION OF MULTIMEDIA INFORMATION, INCLUDING ADVERTISING
WO 00/45302	August 3, 2000	INTERACTIVE SYSTEM FOR INVESTING PRODUCTS ON A NETWORK
WO 00/28455	May 18, 1900	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ADVANCED MOBILE BARGAIN SHOPPING
WO 00/16211	March 23, 2000	METHOD FOR INTERFACING SCANNED PRODUCT INFORMATION WITH A SOURCE FOR THE PRODUCT OVER A GLOBAL NETWORK
WO 00/16205	March 2, 2000	METHOD FOR CONTROLLING A COMPUTER WITH AN AUDIO SIGNAL
WO 99/33013	July 1, 1999	MARKET RESEARCH DATABASE HAVING HISTORICAL CONTROL DESIGNATOR
WO 99/33014	July 1, 1999	MARKET RESEARCH DATABASE CONTAINING SEPARATE PRODUCT AND NAKED PRODUCT INFORMATION
WO 98/19259	May 7, 1998	SYSTEM AND METHOD FOR MANAGING AND SERVING CONSUMER PRODUCT RELATED INFORMATION OVER THE INTERNET
WO 99/00756	January 7, 1999	IMPROVEMENTS IN, OR RELATING TO, SYSTEMS FOR COLLECTING AND DISTRIBUTING INFORMATION
WO 98/58320	December 23, 1998	SHELF MOUNTABLE KIOSK APPARATUS
WO 98/57295	December 17, 1998	KIOSK INFORMATION AND PURCHASE SYSTEM
WO 98/51035	November 12, 1998	METHOD AND SYSTEM FOR ACCESSING ELECTRONIC RESOURCES VIA MACHINE-READABLE DATA ON INTELLIGENT DOCUMENTS
WO 98/51077	November 12, 1998	METHOD FOR EMBEDDING LINKS TO A

		NETWORKED RESOURCE IN A TRANSMISSION MEDIUM
WO 98/51036	November 12, 1998	SCANNER ENHANCED REMOTE CONTROL UNIT AND SYSTEM FOR AUTOMATICALLY LINKING TO ON- LINE RESOURCES
WO 98/38589	September 3, 1998	IN-STORE CONSUMER TARGETED MESSAGING SYSTEM
WO 98/38761	September 3, 1998	AUTOMATIC SERVER ACCESS IN AN INTERNETWORKED COMPUTER SYSTEM
WO 98/34458	August 13, 1998	SYSTEM AND METHOD FOR DISTRIBUTING AND PROCESSING DISCOUNT COUPONS
WO 98/35297	August 13, 1998	CONSUMER PROFILING SYSTEM WITH ANALYTIC DECISION PROCESSOR
WO 98/29822	July 9, 1998	SYSTEMS AND METHODS FOR FACILITATING THE EXCHANGE OF INFORMATION BETWEEN SEPARATE BUSINESS ENTITIES
EP 0 856 812 A3	May 6, 1999	PORTABLE SHOPPING AND ORDER FULFILLMENT SYSTEM
EP O 856 812 A2	May 8, 1998	PORTABLE SHOPPING AND ORDER FULFILLMENT SYSTEM
WO 98/25198	June 11, 1998	INTERSTITIAL CONTENT DISPLAY USING EVENT-CAPTURE CODE RUNNING IN WEB BROWSER ADDRESS SPACE
WO 98/24036	June 4, 1998	BAR CODE SYMBOL DRIVEN SYSTEMS FOR ACCESSING INFORMATION RESOURCES ON THE INTERNET
WO 98/24049	June 4, 1998	SYSTEM AND METHOD FOR CARRYING OUT INFORMATION-RELATED TRANSACTIONS
WO 98/21713	May 22, 1998	MERCHANDISING SYSTEM

WO 98/21679	May 22, 1998	SYSTEM AND METHOD FOR CONDUCTING COMMERCE OVER A DISTRIBUTED NETWORK
WO 98/20411	May 14, 1998	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH MACHINE- READABLE CODES ON PRINTED DOCUMENTS
WO 98/20440	May 14, 1998	SHOPPING CART MOUNTED PORTABLE DATA COLLECTION DEVICE WITH TETHERED DATAFORM READER
WO 98/20434	May 14, 1998	SYSTEM AND METHOD FOR DISPLAYING INFORMATION AND MONITORING COMMUNICATIONS OVER THE INTERNET
WO 98/09243	March 5, 1998	SYSTEM FOR PROVIDING EASY ACCESS TO THE WORLD WIDE WEB
EP 0 837 406 A2	April 22, 1998	DATA RETRIEVAL SYSTEM AND METHOD
WO 98/06055	February 12, 1998	APPARATUS AND METHOD FOR OBTAINING INFORMATION FROM A COMPUTER NETWORK USING A SCANNER AND BROWSER
WO 98/03923	January 20, 1998	WORLD WIDE WEB BAR CODE ACCESS SYSTEM
WO 97/37319	October 9, 1997	A MECHANISM FOR RETRIEVING INFORMATION USING DATA ENCODED ON AN OBJECT
EP O 822 535 A3	February 4, 1998	INTERACTIVE MULTIMEDIA ADVERTISING AND ELECTRONIC COMMERCE ON A HYPERTEXT NETWORK
08/771,823	August 21, 1997	WORLD WIDE WEB BAR CODE ACCESS SYSTEM
WO 97/21183	June 12, 1997	METHOD AND SYSTEM FOR PLACING ADVERTISEMENTS IN A COMPUTER NETWORK

WO 97/07656	March 6, 1997	METHOD AND APPARATUS FOR TRANSMITTING AND DISPLAYING INFORMATION BETWEEN A REMOTE NETWORK AND A LOCAL COMPUTER
WO 97/01137	January 9, 1997	SYSTEM FOR USING ARTICLE OF COMMERCE TO ACCESS REMOTE COMPUTER
EP O 744 856 A2	November 27, 1996	APPARATUS FOR AND METHOD OF UTILIZING A PRODUCT IDENTIFIER CODES TO ESTABLISH COMMUNICATION CONNECTIONS
WO 96/30864	October 3, 1996	INTERACTIVE ADVERTISING SYSTEM AND DEVICE
WO 95/15533	June 8, 1995	COMPUTER SYSTEM FOR ALLOWING A CONSUMER TO PURCHASE PACKAGED GOODS AT HOME

### **TECHNICAL PUBLICATIONS**

Product brochure for the Open AdStream System (OAS) by Real Media, 1995, pages 1-9.

Product brochure entitled "The Catalog" (1996) by QuickResponse Services Corporation, [www.qrs.com](http://www.qrs.com), pages 1-2.

Operating manual for the QRS Keystone for Vendors (1996) by QRS Corporation, [www.qrs.com](http://www.qrs.com), pages 1-126.

Operating manual for the QRS Keystone for Retailers (1996) by QRS Corporation, [www.qrs.com](http://www.qrs.com), pages 1-115.

Web-based product brochure for the Synclink Item Catalog by Vialink, Inc., <http://www.vialink.com/products/products-catalog.html>, 1 page.

Excerpts from the web-based publication entitled "Introduction to JDBC <sup>TM</sup>" by JavaSoft, circa 1999, <http://java.sun.com/docs/books/dbc/intro.html>, pages 1-4.

Scientific article entitled "Animating the Ad" by Mark Gimein, The Industry Standard, Feb. 22-March 1, 1999, pages 1-6.

Web-based product brochure for "Home Network Enliven Services" by Enliven Services, <http://www.enliven.com/products/prodinfo.htm>, 1999, pages 1-8.



Web-based product brochure for "Thinking Media ActiveAds" by Thinking Media, <http://thethinkingmedia.com/activeads/index.html>, 1999, 1 page.

Product brochure for "NCR Web Kiosk Solutions" by NCR Corporation, [www.ncr.com](http://www.ncr.com), 1999, pages 1-14.

Scientific publication entitled "In-House vs. Out-Sourced Ad Serving" by Real Media, Inc., Fort Washington PA, December 22, 1998, pages 1-4.

Scientific publication entitled "IDOCs<sup>TM</sup> Linking the Worlds of Print and Electronic Media<sup>SM</sup>" by NeoMedia Technologies, Inc., September 11, 1998, pages 1-8.

Press Release entitled "'Applied Intelligence Group Inc. Announces New Product Solution that Enhances its Core ViaLink Service'" by Investors Press Releases., [http://www2.vialink.com/investors/press\\_releases/02\\_24\\_98.html](http://www2.vialink.com/investors/press_releases/02_24_98.html), February 24, 1998, pages 1-2.

Web-based technical report entitled "Amended Annual Report (10KSB) for Applied Intelligence Group, Inc." <http://www.edgar-online.com>, March 28, 1997, pages 1-55.

Draft Technical Report entitled "The Retail Store of the Future: Crest of the Third Wave" by Robert J. Corey, Ph.D. and John R. Spears, Ed.D., January 15, 1997, pages 1-45.

Product Brochure for the PREMO WEBDOX by Premenos Corporation, Concord, CA, [www.premenos.com](http://www.premenos.com), 1997, 1 page.

Operating manual entitled "WEBDOX General Information Manual" by Premenos Corp., Concord, CA, 1996-1997, pages 1-20.

Scientific publication entitled "Smart Catalogs and Virtual Catalogs" by Keller, Computer Sci.Dept., Stanford University, 1995, pages 1-11.

Scientific publication entitled "World-Wide Web: The Information Universe", 1996, by Tim Berners-Lee et al., CERN, 1211 Geneva 23, Switzerland, pages 1-8.

## INTERNATIONAL SEARCH REPORTS

<u>App. No.</u>	<u>Filing Date</u>
PCT/US00/31757	August 4, 2001
PCT/US97/19227	March 20, 1998

### STATEMENT OF PERTINENCE

U.S. Letters Patent No. 6,448,979 to Schena et al. discloses a means for communicating multimedia information using a scanner for machine-readable code containing a link information corresponding to a provider information depicted on the printed medium, a user interface for obtaining user input information corresponding to the provider information, a communications bridge for sending the link information and the user input information via the network, a receiver in communication with the scanner, capable of receiving the link information and user input information, and further capable of receiving and playing a multimedia information sequence, and a portal server in communication with the scanner via the network capable of selecting a multimedia information sequence corresponding to the link information and the user input information.

U.S. Letters Patent No. 6,430,554 B1 to Rothschild discloses an interactive search system for use primarily with a global computer network, e.g., the Internet, using a search identifying barcode, such as a UPC code, to rapidly and effectively obtain a supply of related information for presentation to a user. A computer may be used to input a UPC code, taken from a package or advertisement or pre-stored in the computer, to an implementing server on the network. The server contains a database of product and manufacturer identifying UPC codes and uses the input UPC code and the database to identify the manufacturer and is programmed to then perform a search of the network to locate sites relating to or operated by the manufacturer. Also, the server may search the network on a product basis to locate other sites containing the UPC under search. To reduce search time, the user can identify the optional category of the product when the UPC is entered and the server may be programmed to initially search sites where a greater likelihood of uncovering a particular UPC exists. Using "parsing" technology, the server "pulls out" the product description, transmits it to and places it in a random access memory (RAM) or storage of the computer, and proceeds to perform further searching relying on the product description to uncover relevant information. Accordingly, using a single input, a collection of product-related and manufacturer information is quickly assembly in the computer available for a user's consideration all at once at any time. To purchase the particular product, the server can automatically link the computer with the manufacturer's site on the network or the server, to permit direct ordering.

U.S. Letters Patent No. 6,317,761 B1 to Landsman et al. discloses a technique for implementing in a networked client-server environment, e.g., the Internet, network-distributed advertising in which advertisements are downloaded, from an advertising server to a browser executing at a client computer, in a manner transparent to a user situated at the browser, and subsequently displayed, by the browser on an interstitial basis, in response to a click-stream generated by the user to move from one web page to the next. Specifically, an HTML advertising

tag is embedded into a referring web page. This tag contains two components. One component effectively downloads, from a distribution web server and to an extent necessary, and then persistently instantiates an agent at the client browser. This agent "politely" and transparently downloads advertising files, for a given advertisement into browser cache and subsequently plays those media files through the browser on an interstitial basis and in response to a user click-stream.

U.S. Letters Patent No. 6,314,457 to Schena et al. discloses a method for managing a domain name service based on initiating a communication from an object containing provider information using a scanner, a portal server and a receiver connected across a network. The method involves scanning a machine-readable code containing a link information corresponding to the provider information from the object using the scanner and storing the machine-readable code in a memory. The link information is then extracted from the machine readable code in the memory. A user input information corresponding to the provider information is also obtained and stored in the memory. The link information and the user input information are then sent to the portal server via the network. The portal sever receives the link information and the user input information and selects a multimedia information sequence corresponding the link information and the user input information. The multimedia information sequence is then sent to the receiver via the network. The receiver receives and stores the multimedia information sequence plays the sequence automatically or in response to a stimulus, such as a user request.

U.S. Letters Patent No. 6,314,451 to Landsman et al., discloses a technique for implementing in a networked client-server environment, e.g., the Internet, network-distributed advertising in which advertisements are downloaded, from an advertising server to a browser executing at a client computer, in a manner transparent to a user situated at the browser, and subsequently displayed, by that browser on an interstitial basis, in response to a click-stream generated by the user to move from one web page to the next. Specifically, an HTML advertising tag is embedded into a referring web page. This tag contains two components. One component effectively downloads, from a distribution web server and to an extent necessary, and then persistently instantiates an agent at the client browser. The other component is a reference, in terms of a web address, of the advertising management system. The ad management system selects the given advertisement that is to be downloaded, rather than having that selection or its content being embedded in the web content page.

U.S. Letters Patent No. 6,213,394 to Schumacher et al. discloses a visual (e.g. liquid crystal) screen which displays a sequence of graphics presentations and a specific event. The graphics sequence (e.g. visual representations of products in a market) has a display priority except when the specific event occurs. The specific event may be in graphics or alphanumeric form and related or unrelated to the graphics sequence. When the specific event has been displayed, the graphics sequence has priority again. In one embodiment, the specific event may be products identified and priced at a checkout counter by a bar code scanner o a keyboard. This information is processed alphanumerically. The processed information is displayed on the screen until the transaction completion (e.g. total purchase price displayed). After a designated (e.g. 30 seconds) times following the purchase price display, the sequence of graphics presentations returns display priority. In a second embodiment, the display screen is integrated with a bar code scanner in a housing and is displaced from the checkout counter to advertise a graphics sequence of product promotions in the market and also to provide price information requested by the customer. The display screen also provides a priority to the graphics sequence when there is no

interaction with the customer. When the customer desires to proceed an item the customer places the item at the scanner window. The scanned alphanumeric information is processed and the processed information (e.g. product description and price) is displayed alphanumerically for the designated time. The graphics sequence thereafter resumes priority unless another item is scanned within the designated time.

U.S. Patent No. US 6,199,048 B1 to Hudetz et al. discloses a method of and system for accessing remote computers on a network using identification codes found on ordinary articles of commerce. As disclosed, a computer is provided having a database that relates Uniform Product Code ("UPC") numbers to Internet network addresses (or "URLs"). To access an Internet resource relating to a particular product, a user enters the product's UPC symbol manually, by swiping a bar code reader over the UPC symbol, or via another suitable input means. The database retrieves the URL corresponding to the UPC code. This location information is then used to access the desired information resource.

U.S. Letters Patent No. 6,157,946 to Itakura, et al, discloses an information provider and a searcher which provide messages appropriate to a particular user of a terminal regardless of the sites of the World Wide Web (WWW) the user accesses. The information provider establishes a physical communication line to the terminal. A first logical link is established on the physical communication line for forwarding a first image from the WWW to the terminal user identification is received from the terminal, and forwarded to a searcher storing user information and the transmittal conditions of a second message, through a second communication line. A second image appropriate for the particular user is searched for by a search from a message database based on the user information and the transmittal conditions, and transmitted to the terminal through a second logical link also established on the first communication line.

U.S. Patent No. 6,152,369 to Wilz et al. discloses a system for storing, accessing and displaying HTML-encoded documents relating to an object being worked upon in a work environment by a human operator. The human operator wears a body-wearable http-enabled client system equipped with a code symbol reader programmed to read a URL-encoded symbol on the object pointing to a HTML-encoded document stored on one or more http-enabled information servers. The http-enabled client system is connected to the information network by a two-way wireless telecommunication link. The code symbol reader is programmed for reading the URL-encoded symbol affixed to the object and automatically produces symbol character data representative of the read code symbol and the URL-encoded therewithin. The http-enabled client system also includes a network accessing mechanism and a display device. The network accessing mechanism is programmed for automatically accessing one or more of the HTML-encoded documents from one or more of the http-enabled information servers in response to symbol character data being produced by the code symbol reader. The display device is operably connected to the network accessing mechanism, for visually displaying HTML-encoded documents accessed from the http-enabled information servers in response to symbol character data being produced by the code symbol reader. As a result of the present invention, the human operator is enabled to freely review the HTML-encoded documents displayed on the display device while working with the object in diverse work environments involving, for example, inventory management, assembly-line and/or plant inspection, and craft or vehicle inspection and/or repair.

U.S. Patent No. 6,154,738 to Call discloses a method and apparatus for disseminating over

the Internet product information produced and maintained by product manufacturers using existing universal product codes (bar codes) as access keys. A cross-referencing resource, which may take the form of an independent HTTP server, and LDAP directory server, or the existing Internet Domain Name Service (DNS), receives Internet request messages containing all or part of a universal product code and returns the Internet address at which information about the identified product, or the manufacturer of that product, may be obtained. By using preferred Web data storage formats which conform to XML, XLS, XLink, Xpointer and RDF specifications, product information may be seamlessly integrated with information from other sources. A "web register" module can be employed to provide an Internet interface between a shared sales Internet server and an otherwise conventional inventory control system, and operates in conjunction with the cross-referencing server to provide detailed product information to Internet shoppers who may purchase goods from existing stores via the Internet.

U.S. Letters Patent No. 6,141,666 to Tobin discloses a server-based communication system which provides dynamic customization of hypertext tagged documents presented to clients accessing the system. The customization, which pertains to the content of the documents, is based on the specific requirements, of a class to which the client belongs. The class may be defined by the identity of the source which refers the client to the system. The system utilizes a database which dynamically retrieves stored data in response to a server software tool which configures the data into hypertext tagged documents. The system utilizes a dynamic token scheme to pass the identity of the referring network site from document to document to eventual purchase document accessed by the client through the hypertext tags.

U.S. Patent No. 6,138,151 to Reber, et al. discloses in Fig. 5, a method of navigating an electronic network similar to the method disclosed in U.S. Patent No. 6,199,048 B1. Specifically, a bar code symbol printed on a printed article is read by a bar code reader that is connected to a network accessing device (e.g. Internet-enabled computer). The network accessing device accesses a remote database and transmits a portion of the bar code symbol thereto, where it is translated into an electronic address corresponding to the bar code symbol. The electronic address is then transmitted back to the network accessing device, whereupon the corresponding information resource is accessed and displayed.

U.S. Letters Patent No. 6,134,548 to AC Properties B.V. discloses a system for facilitating web-based comparison shopping in conventional, physical, non-web retail environments. A wireless phone or similar hand-held wireless device with Internet Protocol capability is combined with a miniature barcode reader (installed either inside the phone or on a short cable) and utilized to obtain definitive product identification by, for example, scanning a Universal Product Code (UPC) bar code from a book or other product. The wireless device transmits the definitive product identifier to a service routine (running on a Web server), which converts it to (in the case of books) its International Standard Book Number or (in the case of other products) whatever identifier is appropriate. The service routine then queries the Web to find price, shipping and availability information on the product from various Web suppliers. This information is formatted and displayed on the hand-held device's screen. The user may then use the hand-held device to place an order interactively.

U.S. Letters Patent No. 6,125,388 to Reisman discloses an electronic information transport component which can be incorporated in a wide range of electronic information products, e.g. magazine collections, to automate the mass distribution of updates, such as current issues, from a

remote server to wide user base having a diversity of computer stations. Extensions of the invention permit automated electronic catalog shopping with order placement and, optionally, order confirmation. A server-based update distribution service is also provided.

U.S. Letters Patent 6,119,165 to Li et al. discloses a proxy server (or router or intelligent switch or firewall) in an Internet or Intranet environment, which supports a number of clients (e.g. web browsers), has additional functionality which allows it to deliver a software module to a particular client depending on characteristics of that client. This downloaded module is then executed by the client which sets up a bidirectional communications link between the proxy server and the client. This bidirectional link allows, for instance, a status display at the client, by use of a window on the client platform, indicating the current status of proxy server activity such as virus scanning, content filtering, bandwidth usage, etc. In other applications the downloaded module allows provision of an organizational bulletin board, news channel, or provider of common software patches.

U.S. Patent No. 6,108,656 to Durst et al. discloses a method of and system for providing automated access to electronic information stored in a database at either a local or remote location. The system utilizes a machine-readable code printed on a document. The machine-readable code symbol comprises encoded source data, wherein the source data comprises application launch information as well as file location information (e.g. URL). The source data is encoded and printed, and then distributed by the vendor to the end user. The end user then scans the code symbol via appropriate code scanning (e.g. bar code scanning) equipment, decodes the raw decoded data, and the file location information is then used to access the appropriate information file.

U.S. Letters Patent No. 6,094,673 to Dilip et al. discloses a system for generating an agent script. The system determines a web page being viewed by an information requester when a request for information was initiated. An agent script is generated on the web page being viewed by the information requester when the request for information was initiated. Additionally, the agent script may be generated based on an identity associated with the information requester, a history of web pages viewed by the information requester, or the identity of an agent handling the request for information. The system is also capable of displaying multiple information identifiers, based on various factors, such as the identity of the information requester, the web page viewed by the information requester, or the history of web pages viewed by the information requester.

U.S. Letters Patent No. 6,091,411 to Straub et al. discloses a theme which provides a group of multi-media resources for enhancing displays in a graphic user interface to an operating system of a computer according to a topic of the theme. The theme's resources are periodically updated by retrieving updating resources from a remote computer at which the updating resources are stored by a theme provider, so as to provide continually updating enhancements to the graphical user interface display consistent with the theme's topic. The theme's resources can include hypertext templates which define the graphical user interface displays as hypertext pages, allowing the theme to provide a wide variety of enhancements to the displays including text, graphics, hyperlinks, and software components, among others. The theme also enhances a graphical user interface with a view port that plays live or locally cached information from the Internet in each of a plurality of categories, by adding a category for the theme so as to play information from the theme's provider in the view port.

U.S. Patent No. 6,081,827 to Reber et al. discloses a method of and system for delivering a message to an electronic address on an electronic network. As disclosed, the method involves reading a bar code symbol printed on or associated with an article of mail, wherein the bar code symbol uniquely identifies the article of mail to the delivery service. After the recipient receives the article of mail, the recipient uses a bar code symbol reader to read the bar code symbol, and using at least a portion of the bar code read by the recipient, the electronic address of the sender of the article of mail is determined. Then, a digital computing device, operably connected to the bar code reader, is used by the recipient to communicate a message to the electronic address of the sender.

U.S. Letters Patent No. 6,078,848 to Bernstein et al. discloses a self-service computer having a monitor which can access and display documents using browser software, and including software for providing at least one image which includes controls for the browser software. A microphone, speaker, camera and serial input device can be added to the kiosk to extend its functionality. The serial input device can be provided as a card swipe reader, a bar code reader, a smart card reader, a personal identification verifier and combinations of these. Examples of personal identification verifiers include palm print readers, retina scanners, voice analyzers, finger print scanners, DNA testers, and the like.

U.S. Patent No. 6,064,979 to Perkowski discloses a method of and system for finding and serving consumer product-related information on the Internet comprising a database serving subsystem which stores: a plurality of manufacturer identification numbers (MINs) assigned to a plurality of manufacturers of consumer products; a plurality of home-page specifying URLs symbolically linked to the plurality of MINs; a plurality of universal product numbers (UPN) assigned to a plurality of consumer products made by the plurality of manufacturers; and a plurality of product-information specifying URLs symbolically linked to the plurality of UPNs. During operation, a client subsystem transmits to the database serving subsystem a request for information which includes the UPN assigned to the consumer product on which product-related information is being sought. The database serving subsystem automatically compares the UPN against the stored plurality of MINs, and automatically returns to the client subsystem, one or more of URLs symbolically linked to the UPN, if URLs have been symbolically linked to the UPN within the database serving subsystem. However, if no URLs have been symbolically linked to the UPN, then the database serving subsystem automatically returns the home-page specifying URL symbolically linked to the MIN contained within the UPN in the request. By virtue of this novel MIN-based search mechanism embodied within the database serving subsystem, client subsystems are automatically provided with the home-page of the manufacturer's World Wide Web (WWW) site in situations where product-information specifying URLs have not yet been symbolically linked with the UPN on any one of the manufacturer's products.

U.S. Letters Patent No. 6,065,024 to Renshaw discloses a method and system for rendering embedded HTML documents to a visual display unit. The Java applet can parse and render HTML instructions contained within an HTML document to a reserved area of a visual display unit. The Java applet can also launch further applets and therefore allow further nesting or embedding of HTML documents.

U.S. Letters Patent No. 6,061,659 to Murray discloses a method and system of conveying information to a user in specified content displayed in an interactive graphical environment. The information comprises a predetermined message defined by message parameters to create an

image and stored in a message memory. The content includes predetermined specifications for assimilating said message. The method comprises the steps of retrieving the specified content from a content memory then identifying the predetermined specifications from the content for substituting a portion of the content into a transformed representation of the predetermined message. After retrieving and identifying, the predetermined message is obtained from the message memory and transformed into a scaled message according to the specifications to substitute the message into the content portion and define a modified environment. After substitution, the method concludes by communicating the modified environment to the user, whereby the message, having been assimilated into the content, attracts substantial attention to effect improved cognitive processing and recall.

U.S. Patent No. 6,045,048 to Wilz, Sr. et al. discloses a computer-based system provided for composing menus of URL-encoded bar code symbols specifying the location of Internet-based information resources on the Internet. In the illustrative embodiment, the system comprises a computer system operably connectable to the Internet and including a visual display screen, a keyboard, and printer. The system also includes a GUI-based Internet browser program and a URL-menu composition program supported by the computer system. The function of the GUI-based Internet browser program is to enable a user to access and display Internet-based information resources stored on an Internet information server at a location specified by a Uniform Resource Locator (URL). The function of the URL-menu composition program is to enable the user to compose a menu of URL-encoded bar code symbols while surfing the Internet using the GUI-based Internet browser program. After the menu of URL-encoded bar code symbols has been composed, it may be edited and then printed on a selected print medium. By virtue of the present invention, any Internet-based information resource can be automatically accessed and displayed by reading its URL-encoded bar code symbol from the printed menu using a bar code symbol reader operably connected to an Internet-enabled computer system supporting a bar code driven Internet browser program.

U.S. Patent No. 6,044,218 to Faustini discloses a system for a live applet or application development environment which includes software that cooperatively promotes and permits immediate socialization of new components with existing components as the new components are instantiated or dropped onto the development desktop. This is achieved by registering a new component being instantiated with the development environment's kernel. Registration, in turn, invokes an initialization method derived from the class template that yielded the new component. The initialization method appropriately personalizes the new component when it executes its associated logic. The initialization method provides an editor for the new component if its properties are to be made editable. The software environment, its kernel, templates, components, editor and methods are preferably programmed in the Java programming language or a Java compatible language.

U.S. Patent No. 6,038,545 to Mandenberg et al. discloses a system, method and computer program products for generating digital multimedia store displays and menu boards, wherein digital multimedia presentations are assembled at a central location for stores. Start and end times are assigned. The digital multimedia presentations and the assigned start and end times are transmitted to and received at the stores. The received presentations are stored in digital multimedia players at the stores. Upon occurrence of an assigned start time, the associated digital multimedia presentation is automatically played in the store until the assigned end time. If a presentation is not available at a particular time, a generic default presentation is played. The



presentations may be played at assigned start and end times until an expiration date, after which it is automatically deleted from the digital multimedia player. The digital multimedia presentations may be customized at the central location and/or at the stores. The present invention is particularly applicable for generating menu boards for an enterprise which includes multiple sites.

U.S. Patent No. 6,035,332 to Ingrassia, et al., discloses a mechanism for dependably tracking web page activities among a group of browsers. The web browsers retrieve web pages from an HTTP server, with each of the web pages embedding from an HTTP server, with each of the web pages embedding an applet. In response to web page activities (such as loading or unloading of a web page) performed at a browser, the respective applet reports the activities (together with the URL of the web page) to a synchronization server, which in turn stores them in a database.

U.S. Patent No. 6,032,195 to Reber et al. discloses a method of and system for navigating an electronic network to a destination address, and automatically performing a task at the destination using a software agent. As disclosed, the method involves reading a bar code symbol printed on or associated with a physical navigation device (e.g. a paper or plastic card or other substrate), wherein the bar code symbol encodes, in accordance with a bar code format, the electronic address for the destination, or alternatively, a code which is translatable to the electronic address for the destination, using an address translation service. As disclosed, the destination electronic address can be at least a portion of a URL, a URN, an IP address, or an e-mail address. The user uses a bar code symbol reader to read the bar code symbol, and using the bar code read, the electronic address of the destination is determined. Then, and automatically performing a task at the destination using a software agent.

U.S. Patent No. 6,027,024 to Knowles discloses a hand-held portable Internet access terminal having a visual display panel and a GUI-based web browser program integrated with a bar code symbol reader for accessing information resources on the Internet using URL-encoded bar code symbols.

U.S. Patent No. 6,022,537 to Slotznick discloses a system of displaying information at a display of a local user computer. The information includes a primary and secondary information representing information requested by a user and secondary information representing additional information. The primary information is retrieved from a first information memory device, wherein there is a delay period between the request time and the time in which the primary information is available for display. The secondary information is retrieved from a second information memory device. The primary and secondary information are stored in a local storage device of the user's computer, such as the cache memory. A display controller causes the primary information to be displayed simultaneously with a portion of the secondary information on the user's display. When the user requests retrieval of subsequent primary information, a full display of the secondary information replaces the primary information in at least a portion of the delay times which occurs during retrieval of the subsequent primary information. The subsequently requested primary information is displayed after receipt thereof. The full display of secondary information is shown for a predetermined period of time, or may be held on the display by a user command. The user may also directly request a display of the full secondary information without requiring retrieval of subsequently primary information. The system may be implemented in an Internet environment wherein the primary and secondary information are retrieved from one or more remote websites. The portion of secondary information display which is simultaneously

displayed with the primary information may be a thumbnail, keyhole or banner image of the full secondary information. The secondary information may be static, dynamic or user interactive.

U.S. Letters Patent No. 6,012,083 to Savitzky et al. discloses a Web agency which is interposed between a Web client and a Web server to transform the requests from the Web client prior to sending the requests on to the Web server, to transform the document returned from the Web server prior to sending the document onto the Web client, and to store state information about the user of various Web clients connected to the Web agency. The Web agency can be transparent to, and independent of, the Web client and the Web server. The Web agency might be used as a peripheral agency, a personal service agency or a document server. One such Web agency is a printer server which transparently renders documents. For hypertext documents, the rendering process includes generating machine-readable link references.

U.S. Letters Patent No. 6,012,102 to Schchar, like US Patent No. 5,640,193 to Wellner, discloses in Fig. 1, a system for accessing a HTML-encoded document stored on an electronic network (e.g. WWW) at a particular electronic address (i.e. Uniform Resource Locator --URL-- or Internet Protocol --IP--address), by reading a URL or IP address encoded bar code symbol with a bar code reader that is operably connected to a computer-based (Internet-enabled) data communications terminal.

U.S. Application Serial No. 08/691,263, by Swift, et al., published as a priority document of EPO Publication No. EP 0 837 406 A2, discloses several different types of mobile hand-held bar code symbol reading devices. The first type of mobile hand-held bar code symbol reading device is shown in Figs. 1-8 and described at Page 25, lines 29-35 thereof. As shown in Figs. 1-8, the device is realized in the form of a mobile hand-held bar code symbol reader 1 having a small liquid crystal display 15 specifically designed for displaying "information relating to the mode of operation of the reader, or display check information relating to the item carrying the bar code symbol being read together with background information such as the time, date, and confirmation of the operator's identify." In a manner similar to that taught in US Patent No. 5,640,193 to Wellner, published U.S. Application No. 08/691,263 discloses on Page 27, lines 28-31 encoding the URL address of web sites "in a bar code symbol and read(ing) the bar code symbol with the reader for automatic access to the corresponding web site". Also, Page 27, lines 32-34 of published U.S. Application No. 08/691,263 discloses that "the reader may be used to interface with a terminal for entry of the URL address or could be used independently." Notably, this suggestion is essentially the same arrangement taught in the Wellner reference, wherein the URL read by a mobile bar code symbol reader is provided to a separate Internet terminal (e.g. having an Internet browser program, a visual display screen, and keyboard) to enable automatic access to the information resource on the WWW at the URL encoded in the bar code symbol read by the mobile bar code symbol reader. The second type of mobile hand-held bar code symbol reading device is shown in Fig. 9 and described on Page 50 in published U.S. Application No. 08/691,263. As disclosed therein, the device is realized in the form of a mobile hand-held computer unit 20 (shown in Fig. 9) having a hand-held housing, an LCD panel, and a "reader or Browser for scanning a high density bar code label that contains a program script such as HTML, VB script or a specialized compressed version of either." As disclosed, the "script is parsed and interpreted by the Browser which constructs a user interface at run time and presents it to the user. The user interacts with the interface by scanning data labels and interacting with any of the program's controls presented to the user to properly process the data."

As disclosed on Page 51 and at lines 1-14 of Page 52 in published U.S. Application No.

08/691,263, the shipper of goods can distribute a program script label (e.g. a HTML or VB file encoded in the structure of a bar code label) and a data containing label with the goods being shipped; and the receiver of the goods can scan the program script label to create an interface (on the mobile hand-held computer unit) at run time, and then process the data read in the data label printed on the container of the goods.

As disclosed at lines 30-34 of Page 50 in published U.S. Application No. 08/691,263, "using this new system, any computer system equipped with a general purpose interface reader application (Browser 300) can create an interface 'on the fly' that is capable of reading processing information on the accompanying data record labels." This interface reader application, termed "Browser" in Application No. 08/691,263 and indicated by reference number 300 in Fig. 18, is shown therein as comprising: a bar code acquisition engine 304; a parsing engine 305; a printing engine 306 with a printed data interface 307; and a communications engine 308 with a communications input/output interface 309. A careful review of the technical disclosure of US Application No. 08/691,263 reveals that the interface reader application (i.e. "Browser" 300) therein is specifically configured for creating (i.e. programming) customized user interfaces on the display screen of the mobile hand-held computer unit 20, by reading bar code labels encoded with a "program script" expressed as an HTML or Visual Basic (VB) file, so that once the user interface is displayed on the display screen of the mobile computer unit, the information contained in data record (bar code) labels can be entered thereinto by reading the bar code labels and thereafter processed therewithin as the particular application requires.

U.S. Letters Patent 6,009,410 to LeMole et al. discloses a customized advertising repository server which is connected on the World Wide Web (WWW) and which can be accessed by a registered user through his or her browser either by clicking on an icon, or by inputting the specific URL address of the particular server which stores that user's advertising repository. When the user accesses his or her customized ad repository through the browser, a composite advertising page is dynamically configured by the Customized Advertising Repository (CAR) server for that particular user based on that user's previously provided user profile. Furthermore, at least a portion of that composite advertising page can be dynamically configured on a context dependent basis determined from the particular Web site or sites that the user has accessed prior to accessing the CAR. The dynamically configured composite page or pages of advertising provided to the user may contain plural static images, streaming banners, 3-D images, animation, video and/or audio clips, using any of the technologies available on the Web for presenting textual and/or visual information. Such a composite page or pages is configured from a database which stores such images, banners, animation, etc., from plural advertisers. The customized page is created by selecting from among a store house of plural different subscribing advertisers and their associated banner ads, images, etc., those particular images, etc., that will be elements of the customized page based on the user specific areas of interest as determined from the profile, and/or the context dependency. From such dynamically configured composite page or pages, the user can then click on a particular image, video window, banner, etc. to retrieve, through a hyperlink, further information directly from the selected advertiser's own Web site or mirror Web site.

U.S. Letters Patent No. 6,009,407 to Garg discloses a computer-implemented method for merging product marketing control and product inventory control, which generates a segment-level consumer choice model for a plurality of competing brands and aggregates that to a market-level consumer choice model, then generates a brand-level demand probability distribution function based on the choice models. A cost-minimized base stock level and a demand forecast for each of the plurality of brands is generated based on the market level model consumer choice

model and on pricing, promotion, and other marketing data for each of the brands. And inventory control receives inventory subtraction data and inventory addition data and, using, the cost-minimized base stock levels, generates orders to replenish the inventory.

U.S. Letters Patent No. 5,999,912 to Wodarz et al. discloses a system of dynamic advertising, scheduling, display and tracking. It includes at least one template web page that has conventional HTML code defining the format and content of the web page. Special "ad tags" are used to indicate the characteristics of an ad that can be displayed on a web page at the position of the ad tag. A request to view a page is sent to a server-resident parser. The parser accesses the template for the requested page, parses the conventional HTML codes, and provides such codes to the user. In addition, the parser "expands" each ad tag to standard HTML code that defines the characteristics of an ad. During expansion of ad tags, the parser determines from each ad tag the type ad that can be inserted at the page position of the ad tag; a bin identifier defining which ads can be associated with the ad tag; and various optional flags and code. The parser generates a list of valid ads by searching through a conventional database, selects one that fulfills all the parameters of the ad tag, and generates HTML code linking a particular ad to the ad tag. That HTML code is then sent to the user. The parser program can also apply scheduling criteria to select ads from the generated list of eligible candidates.

U.S. Letters Patent No. 5,999,914 to Blinn et al. discloses an electronic promotion system apparatus and method which provides promotions across a computer network. The promotion system includes a shopper browser communicating with a merchant server. A shopper places an order using the shopper browser. The order is received by the merchant server. A purchasing pipeline executing in the merchant server processes the order. The purchasing pipeline includes a promotion component. The promotion component determines the eligibility of the shopper for each one of multiple promotions using information stored in a promotion table. Furthermore, the eligibility of each item on the shopper order to trigger each one of the multiple promotions is determined. Additionally, the eligibility of each item on the shopper order to receive an award is determined. The awards are then applied appropriately. Each item may be used to trigger only one promotion where awards were granted. Furthermore, each item may only receive one award. Thus a merchant may offer multiple promotions while ensuring the promotions are applied as intended.

U.S. Letters Patent No. 5,996,007 to Klug discloses a method for providing selected content during waiting time of an Internet session. In one implementation, the process implemented by the waiting time message program of the invention involves monitoring a user node to identify a web site access request, accessing a previously stored message set, selecting a message from the message set and displaying or playing back the selected message. The message set and particular messages may be selected based on user information (e.g., demographic, psychographic, or product preference information), information regarding the expected waiting time or other information. Messages are thereby provided during waiting time that would otherwise be essentially wasted from the perspective of an ordinary Internet user, e.g., during processing time associated with the exchange of information between Internet content providers and Internet content users.

U.S. Patent No. 5,995,105 to Reber et al. discloses a method of and system for automatically linking a user to an information resource at a network address on an electronic network. The system comprises a physical network navigation device (e.g. plastic or paper card or

substrate) bearing a human-viewable image (e.g. logo) indicative of the information resource in the electronic network, and also a machine-readable code (e.g. bar code symbol) which is encoded with the network address (e.g. URL, IP address, etc.). The machine readable code is read by a data reader, and produces data representative of the network address, which is communicated to a network access device (e.g. network computer, internet television or portable wireless device) having a display device. The network access device then uses the network address to access the information resource and display the same on the display device. Alternatively, the machine readable code is read by a data reader, and produces data representative of the information resource, which is communicated by a network access device (e.g. network computer, internet television or portable wireless device) having a display device, to a node which translates (e.g. converts) the code into an network address for the information resource. The network access device then uses the network address to link to the information resource and then communicates the content thereof to the user for display on the display device.

U.S. Patent No. 5,992,752 to Wilz et al. discloses a method of and system for enabling information-related transactions over the Internet using Java-enabled internet terminals provided with bar code symbol readers for reading Java-applet encoded bar code symbols.

U.S. Patent No. 5,979,757 to Tracey et al. discloses a portable shopping system, in which a portable terminal includes a bar code symbol reader for identifying items for sale (i.e. by reading bar code symbols thereon), and an audio and visual presentation device for providing customer-specific marketing files to the customer in response to reading URL-encoded bar codes in order to promote the sale of the identified item. A preferred alternative embodiment of the present invention includes machine readable coded labels having one or more remote file locations, such as uniform resource locators ("URLs") used to reference sites on the world wide web. These URLs are used by the portable terminal to retrieve data files including items such as prices, nutritional data, coupon availability, promotions, marketing data and general interest data from various local and remote addresses available over a wireless communication network. The machine coded labels are preferably encoded with a high-density bar code such as PDF417. These URLs can be presented on the terminal display in the form of a hyperlink which submits a data retrieval request to a remote address upon selection. The displayed hyperlink could be presented on the display as either a direct address (URL) or a highlighted title for the address.

U.S. Patent No. 5,986,651 to Reber et al. discloses a method of and system for automatically linking a user to information resources located at network addresses on an electronic network. The system comprises a physical network navigation device or network address guide (e.g. plastic or paper card or substrate) bearing a plurality of human-readable images (e.g. textual information) indicative of a plurality of information resources in the electronic network, and also a plurality of machine-readable codes (e.g. bar code symbols), each being encoded with a network address (e.g. URL, IP address, etc.) associated with one of the plurality of information resources. In accordance with the disclosed method of network navigation, a human uses a data reader (e.g. bar code reader) to read a machine readable code (e.g. bar code symbol) associated with a human-readable image (e.g. WWW site name) of an information resource which the human seeks to access. The data reader produces data representative of the network address, which is communicated to a network access device (e.g. network computer, internet television or portable wireless device) having a display device. The network access device then uses the network address to automatically access the information resource and display the same on the display device.

U.S. Patent No. 5,978,773 to Hudetz et al. discloses a system and method for using identification codes found on ordinary articles of commerce to access remote computers on a network. In accordance with one embodiment of the invention, a computer is provided having a database that relates Uniform Produce Code ("UPC") numbers to Internet network addresses (or "URLs"). To access an Internet resource relating to a particular product, a user enters the product's UPC symbol manually, by swiping a bar code reader over the UPC symbol, or via other suitable input means. The database retrieves the URL corresponding to the UPC code. This location information is then used to access the desired resource.

Like corresponding WIPO Publication No. WO 97/37319, US Patent No. 5,971,277 to Cragun et al. discloses, at lines 34-53 in Column 7 and in Figs 1B and 3 thereof, a system for serving product information to consumers using a UPC product database (136 in Figs 1B and 3), similar to the one disclosed in U.S. Patent No. 5,978,773 to Hudetz, et al, WIPO Publication No. WO 97/01137 (Hudetz, et al./Solar Communications, Inc.) and EPO Publication No. EPO744856 (Penzias/ATT&T IPM, Inc.) As disclosed in US Patent No. 5,971,277, a bar code symbol reader (118) connected to a client computer system (104, 106, 112) is used to read a UPC (117) on a consumer product (115), and then the recovered UPC number is used to access the UPC product database (136) and access URL information (325) keyed to the inputted UPC number. The client computer system (102) then uses the URL to access product information (such as product name, unit price, and product location in store) for display to the consumer.

U.S. Patent No. 5,964,836 to Rowe et al. discloses a method and apparatus for managing sessions with a host-based application by embedding a user interface, such as a screen, for a first session between the remote computer and the application in a Web page displayed at a remote computer. Preferably, a Java applet is downloaded to the remote computer and processed to embed the user interface. The downloaded Java applet may also be processed to establish the first session between the remote computer and the application. Upon termination of the first session, the user interface is removed from the Web page. According to one aspect, a link object for accessing a second session between the remote computer and the application may be embedded in the Web page and upon embedding the user interface for the first session in the Web page, the link object may be removed from the Web page. Upon termination of the first session, the user interface for the first session may be removed from the Web page, and the link object for the second session embedded in the Web page again. According to another aspect, the Web page is displayed in a first window, a second session established, and a user interface for the second session provided in a second window. The user interface includes a link object associated with the first session embedded therein. In response to user selection of the link object, the user is directed to the first window.

U.S. Patent No. 5,966,696 to Giraud discloses an advertising system adapted to track consumer exposure to a number of different advertisements and to expose consumers to several different advertisements. The system simultaneously measures the number of consumers viewing different advertisements, while displaying different selected advertisements for viewing by the consumer. The system includes a display for displaying advertisements and other information. The system functions in either one of an idle mode, wherein potential consumers are not within a sensed proximity range, and an active mode, wherein the presence of potential consumers within the proximity range is detected. In the idle mode, the system displays programmed non-advertisement information. In the active mode, the display displays a programmed sequence of

advertisements, that includes full-motion color commercials that may be interspersed with other information. A sound module may be provided for generating an audio portion of the advertisements. The time period of the active mode is sensed for determining the portions of the programmed sequence of advertisements that were displayed during the active mode, for determining particular advertisements that may have been viewed by the consumer to generate data. The data is retrieved from a host computer for determining what information in the active mode was displayed and the duration that the system was in the active mode for determining consumer presence and what portions of the active mode information may have been viewed by consumers.

U.S. Patent No. 5,963,916 to Kaplan discloses a system for on-line user-interactive multimedia based point-of-preview. The system provides for a network website and accompanying software and hardware for allowing users to access the website over a network such as the Internet via a computer. The user is uniquely identified to the website server through an identification name or number. The hardware associated with the website includes storage of discrete increments of pre-selected portions of music products for user selection and preview. After user selection, a programmable data processor selects the particular prerecorded music product from data storage and then transmits that chosen music product over the network to the user for preview. Subscriber selection and profile data (i.e. demographic information) can optionally be collected and stored to develop market research data. The network website can be accessed from a publicly accessible kiosk, available, e.g. at a retail store location, or from a desktop computer.

U.S. Patent No. 5,959,623 to van Hoff et al. discloses a method and apparatus for displaying user selectable advertising information or other user selectable information images on a host computer. In a preferred embodiment, a user accessing the World Wide Web via a browser application is concurrently displayed user selectable advertising information on a predefined portion of the host computer screen. In this embodiment, an advertising application is executed concurrently with the browser application. The advertising application is an object oriented program that includes a data structure for storing methods and data pointers. The methods define the creation of the dedicated portion of the user screen display for displaying the advertising information, methods for selecting the particular information to be displayed, as well as methods for accessing additional information related to the displayed advertisement images. The data pointers point to the particular advertising services, topical informational services or other services which have been selected by a user for display. In the preferred embodiment, the advertising images are displayed at all times a user is logged onto the World Wide Web. In another embodiment, the user may turn on or off the informational images as desired.

U.S. Patent No. 5,960,411 to Hartman et al. discloses a method and system for placing an order to purchase an item via the Internet. The order is placed by a purchaser at a client system and received by a server system. The server system receives purchaser information including identification of the purchaser, payment information, and shipment information from the client system. The server system then assigns a client identifier to the client system and associates the assigned client identifier with the received purchaser information. The server system sends to the client system the assigned client identifier and an HTML document identifying the item and including an order button. The client system receives and stores the assigned client identifier and receives and displays the HTML document. In response to the selection of the order button, the client system sends to the server system a request to purchase the identified item. The server

system receives the request and combines the purchaser information associated with the client identifier of the client system to generate an order to purchase the item in accordance with the billing and shipment information whereby the purchaser effects the ordering of the product by selection of the order button.

U.S. Patent No. 5,957,695 to Redford et al. discloses a remote control for an interactive media that can include a printed publication and/or a storage media and/or a data button. One embodiment of a remote control includes a printed publication (such as a book, magazine or a catalog) and one or more buttons physically attached to the printed publication to allow users to remotely control use of associated electronic content by a host device. Another embodiment of a remote control has a housing capable of removably holding a storage media encoded with electronic content associated with a button of the remote control. Yet another embodiment of a remote control has at least one data button which permits the user to select the data to be displayed by the host device. An autostart driver in the host device detects insertion of a storage media into a peripheral and automatically starts an application. The application interprets button codes transmitted by the remote control and displays the results or initiates other events. An application development system allows an author to quickly create interactive media applications.

U.S. Patent No. 5,948,061 to Merriman et al. discloses methods and apparatuses for targeting the delivery of advertisements over a network such as the Internet. Statistics are compiled on individual users and networks and the use of the advertisements is tracked to permit targeting of the advertisements of individual users. In response to requests from affiliated sites, an advertising server transmits to people accessing the page of a site an appropriate one of the advertisements based upon profiling of users and networks.

U.S. Patent 5,950,173 to Perkowski discloses a method of and system for finding and serving consumer product-related information over the Internet to consumers in retail shopping environments, as well as at home, at work, and on the road. The system includes Internet information servers which store information pertaining to Universal Product Number (e.g. UPC number) preassigned to each consumer product registered with the system, along with a list of Uniform Resource Locators (URLs) that point to the location of one or more information resources on the Internet, e.g. World Wide Web-sites, which related to such registered consumer products. Upon entering the UPC number into the system using a conventional Internet browser program running on a computing system, the menu of URLs associated with the entered UPC number is automatically displayed for user selection. The displayed menus of URLs are categorically arranged according to specific types of product information such as, for example: product specifications and operation manuals; product wholesalers and retailers; product advertisements and promotions; product endorsements; product updates and reviews; product warranty/servicing; related or complementary products; product incentives including rebates, discounts and/or coupons; manufacturer's annual report and 10K information; electronic stock purchase; etc. Web-based techniques are disclosed for collecting the UPC/URL information from manufacturers and transmitting the same to the Internet-based databases of the system.

U.S. Patent No. 5,946,646 to Schena et al. discloses a device for generating and displaying a message. The present invention comprises a computer memory for storing the ad, message and searchable database in a memory, a distribution link for transmitting the ad, message and searchable database to a remote location for storing said message, and means associated with an end user workstation at the remote location for retrieving said ad, message and searchable



database and displaying same on a CRT monitor associated with the workstation at a time when the workstation is not in use.

U.S. Patent No. 5,940,595 to Reber et al. discloses a method of and system for navigating an electronic network, wherein a bar code reader connected to an Internet-enabled computer system shown in Fig. 7 is used to read a URL-encoded bar code label printed on a network navigation device (e.g. document), and the URL is then provided to the computer system to access the information resource on the electronic network, and display the same on the display screen of the computer system.

U.S. Patent No. 5,940,074 to Britt, Jr. et al. discloses a World Wide Web browser software implemented in a processing system housed in a set-top box connected to a television and communicating over a wide-area network with one or more servers. The browser software allows a user to navigate using a remote control through World-Wide Web pages in which a number of hypertext anchors are displayed on the television. User inputs are entered from a remote input device using an infrared (IR) link. The processing system includes a read-only memory (ROM) and a flash memory. The mask ROM and the flash memory are assigned adjacent memory spaces in the memory map of the processing system. Browser software and configuring data are stored in the flash memory. Other software and configuring data are stored in a mask ROM. The browser is upgraded or reconfigured by downloading to the box replacement software or data transmitted from a server over the network and then writing the replacement software or data into the flash memory. A mechanism is provided to temporarily maintain power to the processing system in the event power to the box is lost during downloading. The mechanism allows the writing of a current block to be completed. An indication of the current block is maintained while power is absent so that downloading can be resumed once power is restored from the last block that was written.

US Patent No. 5,938,726 to Reber et al. discloses a method of and system for automatically linking a user to an information resource at a network address on an electronic network. The system comprises a physical network navigation device (e.g. plastic or paper card or substrate) bearing a human-viewable image (e.g. logo) indicative of the information resource in the electronic network, and also a machine-readable code (e.g. bar code symbol) which is encoded with the network address (e.g. URL, IP address, etc.). The machine readable code is read by a data reader, and produces data representative of the network address, which is communicated to a network access device (e.g. network computer, internet television or portable wireless device) having a display device. The network access device then uses the network address to access the information resource and display the same on the display device. Alternatively, the machine readable code is read by a data reader, and produces data representative of the information resource, which is communicated by a network access device (e.g. network computer, internet television or portable wireless device) having a display device, to a node which translates the code to a network address for the information resource. The network access device then uses the network address to link to the information resource and then communicates the content thereof to the user for display on the display device.

U.S. Patent No. 5,937,390 to Hyodo discloses an on-line advertising system and method that sends an advertisement including the toll-free telephone number of a store to a user terminal, when a user accesses an advertisement on an on-line advertising system from the user terminal on the Internet using a WWW browser. When the user calls this toll-free telephone number, a toll-free call control system connects that call from the user to the store and, at the same time, obtains

information on that access to the toll-free telephone number as log information. This log information is posted to the service provider, and the service provider analyzes the hit rate from this log information and the WWW browser access log. From this result, the on-line service provider or the advertiser can determine the effectiveness of that advertisement.

U.S. Patent No. 5,937,392 to Alberts discloses an Internet advertising system that has a database, a controller, and an ad server operating as part of a web server. The database has advertising campaign information, including identification information and frequency information for how often the ad is to be served. The ad server uses the campaign information from the database to control the relative ratios of serving ads, the distribution of ads throughout the day, and any triggering mechanism for controlling what ads are served.

U.S. Patent No. 5,933,829 to Durst et al. discloses a secure system and method for providing automated access to electronic information stored in a database in either a local or remote location. The system utilizes a machine-readable code printed on a document, referred to herein as an intelligent document since it stores information used to automatically access the information. The machine-readable symbol is encoded with source data (including a file location pointer) that is first obfuscated by generating a checksum of the source data, encrypting the source data by using the checksum as an encryption key, and assembling the checksum with the encrypted source data prior to encoding. The machine-readable symbol is then printed and distributed by the vendor by any logical means to the end user. The end user then scans the code via appropriate code scanning (e.g. bar code scanning) equipment, and de-obfuscates the scanned data by parsing the checksum, decrypting the remainder of the scanned data string (which includes the file location pointer) using the parsed checksum as a decryption key, computing a checksum of the decrypted data string, and comparing the computed checksum with the parsed checksum to determine the validity of the code. The file location pointer is then used to access the appropriate file. In a preferred embodiment, a Web browser program is launched, and the URL of the vendor's Web site is accessed through the Internet.

U.S. Patent No. 5,930,767 to Reber et al. discloses a computer-assisted transaction method involving the use of a transaction terminal having a bar code symbol reader. The bar code reader is used to first read a first data element encoded within a first bar code on a substrate, so as to indicate an item in a transaction. Then the bar code reader is used to read a second data element encoded within a second bar code so as to indicate a party to the party transaction. The second data element is then authenticated, and upon authentication, the transaction is approved, and a record thereof is created.

U.S. Patent No. 5,933,811 to Angles et al. discloses a system and method for delivering customized electronic advertisements in an interactive communication system. The customized advertisements are selected based on consumer profiles and are then integrated with offerings maintained by different content providers. The preferred interactive communication system interconnects multiple consumer computers, multiple content provider computers and multiple Internet provider computers with an advertisement provider computer. Whenever a consumer directs one of the consumer computers to access an offering existing in one of the content provider computers, an advertising request is sent to the advertisement provider computer. Upon receiving the advertising request, the advertising provider computer generates a custom advertisement based on the consumer's profile. The customer advertisement is then combined with the offering from the content provider computer and displayed to the consumer. The advertisement provider

computer also credits a consumer account, a content provider account and an internet provider account each time a consumer views a custom advertisement. Furthermore, the advertisement provider computer tracks consumer responses to the customized advertisements.

U.S. Patent No. 5,918,214 to Perkowski discloses a method of and system for finding product and service related information on the Internet. The system includes Internet Servers which store information pertaining to Universal Product or Service Number (e.g. UPC number) preassigned to each product and service registered in the system, with Uniform Resource Locators (URLs) that point to the location of one or more information resources on the Internet, e.g. World Wide Websites, related to such products or services. Each client computer system includes an Internet browser provided with an "Internet Product/Service Information (IPSI) Finder" button and a "Universal Product/Service Number (UPSN) Search" button. The system enters its "IPSI Finder Mode" when the "IPSI Finder" button is depressed and enters the "UPSN Search Mode" when the "UPSN Search" button is depressed. When the system is in its IPSI Finder Mode, a predesignated information resource (e.g. advertisement, product information, etc.) pertaining to any commercial product or service registered with the system is automatically accessed from the Internet and displayed from the Internet browser by simply entering the registered product's UPN or the registered service's USN into the Internet browser. When the system is in its "UPSN Search Mode," a predesignated information resource pertaining to any commercial product or service registered with the system is automatically accessed from the Internet and displayed from the Internet browser by simply entering the registered product's trademark(s) or (servicemark) and/or associated company name into the Internet browser.

U.S. Patent No. 5,918,213 to Bernard, et al. discloses a method of and system for automated previewing and purchasing of music, video, software and other multimedia products using a remote communication medium such as a telephone, a direct data link, or a network connection (e.g. Internet).

U.S. Patent No. 5,913,040 to Rakavy et al. discloses a method and apparatus for selecting advertisements and other information from a computer network databases based on user defined preferences and transmitting the selected advertisement in background mode over a communications link between the computer network and a local computer with minimal interference with other processes communicating over the communications link. This method includes monitoring the communications link and transmitting portions of the advertisement when the communications link line utilization is below a preestablished threshold. Methods and apparatus are provided for displaying or otherwise presenting the selected advertisements on the user's computer. Additional methods and apparatus are provided for selecting and presenting information stored on a local storage media based on user defined preferences.

U.S. Patent No. 5,913,210 to Call discloses an Internet system for delivering information about product from the source of those products, typically the manufacturer, to those who need that information, such as product resellers and consumers. The system employs a product code translator, which may be implemented by one or more servers accessed via the Internet. The product code translator stores cross-references between product codes and the address of Internet resources which provide information about the products designated by the codes. Web pages produced by online resellers may display lists of products in response to search requests from customers, and provide the customer with detailed information about any listed product by incorporating links to the product information made available by the participating manufacturers

using the cross-referenced addresses provided by the product code translator. Searchable databases may be compiled by indexing product description data which is retrieved from the manufacturers' Internet sites using the Internet addresses provided by the product code translator.

U.S. Patent No. 5,905,251 to Knowles discloses a method of and system for accessing information resources on the WWW by reading URL-encoded bar code symbols printed on objects using a mobile Internet-access terminal having an integrated bar code symbol reader and Web-enabled browser program.

U.S. Letters Patent No. 5,905,248 to Russell et al. discloses a transaction-enabling method and system, wherein a transaction-enabling Java-Applet is embedded within an HTML-encoded document stored in an HTTP server at predetermined URL. When a code symbol (e.g., magstripe or bar code) encoded with the URL is read using a code symbol reader interfaced with a Java-enabled Internet terminal, the corresponding HTTP document is automatically accessed and displayed at the terminal, and the transaction-enabling Java-Applet initiated for execution so that the customer, consumer or client desiring the transaction can simply and conveniently conduct the information-related transaction over the Internet.

U.S. Patent No. 5,903,729 to Reber et al. discloses a method of navigating an electronic network which includes steps of reading a list of at least one resource in an electronic network, displaying at least a portion of the list, receiving a user-initiated selection of a resource from the list, linking to the resource upon receiving the user-initiated selection, and removing the resource from the list. An article of manufacture directs a system for navigating an electronic network to perform the above-listed steps.

U.S. Patent No. 5,902,353 to Reber et al. discloses a method of navigating an electronic network which includes steps of reading a list of at least one resource in an electronic network, displaying at least a portion of the list, receiving a user-initiated selection of a resource from the list, linking to the resource upon receiving the user-initiated selection, and removing the resource from the list. An article of manufacture directs a system for navigating an electronic network to perform the above-listed steps.

U.S. Patent No. 5,897,622 to Blinn et al. discloses a merchant system for online shopping and merchandising. The merchant system architecture provides great flexibility for a merchant to adapt the merchant system to their existing business practices, promotions and databases. The merchant system includes a dynamic page generator, a configurable order processing module and a database module capable of retrieving data from the database without regard to its schema. The present invention enables merchants to create electronic orders which are easily adaptable for different sales situations. The order processing module includes multiple configurable stages to process a merchant's electronic orders. The merchant system is capable of generating pages dynamically using templates having embedded directives. The database module and the dynamic page generator allow merchants to modify their databases and page displays without having to reengineer the merchant system.

U.S. Patent No. 5,890,175 to Wong et al. discloses a computerized method for dynamically generating and displaying a catalog including a plurality of items, each item being classified by at least group information and product information. The method allows a merchant user to generate a catalog by classifying new items by entering into pre-defined fields at least group and product

information text for each item, and by optionally specifying a multimedia object associated with the new item, where each field optionally has an associated link to a linked object. The user selects a display template which defines a pre-designed catalog page layout having generally designated areas for placement of text and multimedia objects relating to an associated item. After the user inputs information regarding an item into the form fields, the field contents are associated with corresponding areas of the selected template. The field contents are then stored as a part of a page of the catalog. Upon receiving a request to display a page, the stored field contents are retrieved and checked as to whether the requested page includes any multimedia objects. If so, the logical framing for each area designated for placement of multimedia objects is adjusted to accommodate all of the multimedia objects. The retrieved field contents, including any associated links to linked objects, of the requested page are then combined with the display template to generate a display page, which is displayed to a consumer.

U.S. Patent No. 5,869,819 by Knowles et al. discloses a method of and system for tracking objects (e.g. packages) bearing URL-encoded bar code symbols.

U.S. Patent No. 5,864,823 to Levitan discloses a system for distribution of advertisements to interested recipients only via one-way nonaddressable television media and for transmission of orders from recipients to advertisers via two-way addressable Internet media. This system can be used for electronic delivery of newspapers, magazines, books, music, video and computer software to authorized recipients only via nonaddressable television media with recipients' authorization via addressable Internet media. As a result, usage of slow and overcrowded Internet in e-commerce is limited to relatively low-volume communications that need to be addressable while all high-volume information is transferred through fast one-way television lines to bypass the Internet and reach simultaneously an unlimited number of recipients.

U.S. Patent No. 5,854,897 to Radziewicz et al. discloses a communications marketing system that allows a client station accessing a computer network through a Network Service Provider (NSP) to receive advertisements whenever the connection path between the client station and the NSP is idle. An announcement server connected to the NSP transmits advertising messages and other information to the client station when the connection path is idle. The advertisements are displayed in a predetermined location of a browser client window of the client station. The advertisements can be played/displayed for a predetermined time period.

U.S. Patent No. 5,841,978 to Rhoads discloses a given data object can effectively contain both a graphical representation to a network user and embedded information, such as the URL address of another network node, thereby to permit the object itself to serve as an automated hot link. The underlying development tools and web site browsers create and identify such an object for use in a manner similar to a hot link, as provided on the World Wide Web.

U.S. Patent No. 5,804,803 discloses, in Column 7 at lines 35-59 and Figs. 1B and 3 thereof, a system for serving product information to consumers using a UPC product database (136 in Figs 1B and 3), similar to the one disclosed in US Patent No. 5,978,773 to Hudetz, et al. EPO Publication No. WO 97/01137 (Hudetz, et al./Solar Communications, Inc.) and EPO Publication No. EPO744856 (Penzias/AT&T IPM, Inc. As disclosed in US Patent No. 5,804,803, a bar code symbol reader (118) connected to a client computer system (104, 106, 112) is used to read a UPC (117) on a consumer product (117), and then the recovered UPC number is used to access the UPC product database (136) and access URL information (325) keyed to the inputted

UPC number. The client computer system (102) then uses the URL to access product information (such as product name, unit price, and product location in store) for display to the consumer.

U.S. Patent No. 5,761,071 to Bernstein et al. discloses a self-service kiosk system is provided which includes a monitor having a display screen, a microprocessor electrically coupled to the monitor for controlling the display screen, a browser software executable on the microprocessor for accessing and displaying documents in response to user input, the graphic user interface (GUI) of the browser software including controls for the browser software and a document viewing area, and at least one image positioned for display on the screen so as to mask the controls for the browser software, the image thus rendering the controls inaccessible to a user of the kiosk system to resist tampering with the browser software. The self-service kiosk system may also include a security control software which is programmed to disable system functions available to the user of the kiosk system to resist tampering with operation of the kiosk system.

U.S. Patent No. 5,742,768 to Gennaro et al. discloses a method for providing a web page having an embedded menu to a web browser and for displaying the web page to a user of the web browser. A request for a web page is received from a web browser. In response to the request, a web page and an applet associated with the web page are packaged for transmission to the web browser. The web page and the applet are then transmitted to and downloaded by the web browser. When the web page is displayed and the applet is executed by the web browser, the applet creates and manages an embedded menu in the displayed web page under control of the applet. This embedded menu provides a user of the web browser with a plurality of links through one action in the displayed web page.

U.S. Patent No. 5,740,549 to Reilly et al. discloses an information and advertising distribution system containing a data server which stores and updates a database of information items and advertisements. The information items and advertisements are each categorized so that each has an associated information category. Workstations remotely located from the data server each include a display device, a communication interface for receiving at least a subset of the information items and advertisements in the data server's database and local memory for storing the information items and advertisements received from the data server. An information administrator in each workstation establishes communication with the data server from time to time so as to update the information items and advertisements stored in local memory with at least a subset of the information items and advertisements stored by the data server. An information display controller in each workstation displays on the workstation's display device at least a subset of the information items and advertisements stored in local memory when the workstation meets predefined idleness criteria. At least a subset of the workstations include a profiler for storing subscriber profile data. The subscriber profile data represents subscriber information viewing preferences, indicating information categories for which the subscriber does and does not want to view information items. The information display controller includes a filter for excluding from the information items displayed on the display device those information items inconsistent with the subscriber profile data.

U.S. Patent No. 5,737,739 to Shirley et al. discloses a system, such as could be used for service of a complicated physical device such as a printer or copier, that exploits a knowledge base which is written in a markup language format such as SGML. The knowledge base comprises text which, if desired, can be printed out on paper to yield a traditional service manual. In addition to the typical formatting markup language tags surrounding the text of the knowledge base,

hierarchical tags are provided in the electronic version of the knowledge base, to define a set of decision trees which can be accessed and navigated by an expert system. A diagnostic advisor can access specific elements of the knowledge base as needed to synthesize optimized diagnosis and repair procedures depending on an entry given by a tech rep servicing a machine. This arrangement thus supports both a printed service manual and a viewer that provides expert diagnostic advice.

U.S. Patent No. 5,737,619 to Judson discloses a computer program product and method of browsing the World Wide Web of the Internet using a client machine (e.g., a personal computer) supporting a graphical user interface and an Internet browser. The method locally stores, retrieves and outputs information objects to reduce the waiting time normally associated with the download of hypertext documents having high resolution graphics. In one embodiment, the method begins as a web page being displayed on the graphical user interface, the web page having at least one link to a hypertext document preferably located at a remote server. In response to the user clicking on the link, the link is activated by the browser to thereby request downloading of the hypertext document from the remote server to the graphical user interface of the client. While the client waits for a reply and/or as the hypertext document is being downloaded, the browser displays a previously-cached information object.

U.S. Patent No. 5,724,521 to Dedrick describes a method and apparatus for providing electronic advertisements to end users in a consumer best-fit pricing manner which includes an index database, a user profile database, and a consumer scale matching process. The index database provides storage space for the titles of electronic advertisements. The user profile database provides storage for a set of characteristics which correspond to individual end users of the apparatus. The consumer scale matching process is coupled to the content database and the user profile database and compares the characteristics of the individual end users with a consumer scale associated with the electronic advertisement. The apparatus then charges a fee to the advertiser, based on the comparison by the matching process. In one embodiment, a consumer scale is generated for each of multiple electronic advertisements. These advertisements are then transferred to multiple yellow page servers, and the titles associated with the advertisements are subsequently transferred to multiple metering servers. At the metering servers, a determination is made as to where the characteristics of the end users served by each of the metering servers fall on the consumer scale. The higher the characteristics of the end users served by a particular metering server fall, the higher the fee charged to the advertiser.

U.S. Patent No. 5,721,827 to Logan et al. discloses an audio program and message distribution system in which a host system organizes and transmits program segments to client subscriber locations. The host organizes the program segments by subject matter and creates scheduled programming in accordance with preferences associated with each subscriber. Program segments are associated with descriptive subject matter segments, and the subject matter segments may be used to generate both text and audio cataloging presentations to enable the user to more easily identify and select desirable programming. A playback unit at the subscriber location reproduces the program segments received from the host and includes mechanisms for interactively navigating among the program segments. A usage log is compiled to record the subscriber's use of the provided program materials, to return data to the host for billing, to adaptively modify the subscriber's preferences based on actual usage, and to send subscriber-generated comments and requests to the host for processing. Voice input and control mechanisms included in the player allow the user to perform hands-free navigation of the program materials

and to dictate comments and messages which are returned to the host for retransmission to other subscribers. The program segments sent to each subscriber may include advertising materials which the user can selectively play to obtain credits against the subscriber fee. Parallel audio and text transcript for at least selected programming enable subject matter searching and synchronization of the audio and text files. Speech synthesis may be used to convert transcript files into audio format. Image files may also be transmitted from the server for synchronized playback with the audio programming.

US Patent No. 5,715,444 to Danish et al. discloses a system and method for searching a product information database using guided parametric searching techniques.

US Patent No. 5,640,193 to Wellner discloses a system and method for accessing multimedia information resources stored in information servers in an information network. The network address (e.g. URL) of a particular information resource is encoded within the structure of a bar code symbol placed on an object or article associated therewith, which is related to the particular information resource in some manner. When the bar code symbol is read using a bar code symbol reader connected to client terminal, the recovered network address is used to access the information resource from the network and displayed the same for the use and enjoyment of the user.

US Patent No. 5,635,694 to Tuhro presents a system and method which embeds a postal code in a postal mark. The system includes a scanner to input a destination zip code for a piece of mail and a control unit, connected to the scanner, to convert the destination zip code to zip code glyphs and to embed the zip code glyphs into a predetermined portion of a bit map representing the postal mark.

US Patent No. 5,612,527 to Ovadia discloses a system for redeeming bar coded discount offer flyers by reading a bar coded consumer identification card provided to the consumer, and then reading the bar coded discount offer flyer in order to redeem the offer and track the consumer purchasing habits.

U.S. Patent No. 5,594,509 to Florin et al. discloses an interactive audio-visual (A/V) transceiver coupled to a television and/or telephone (T/T) cable, a TV, a video recorder (VCR), and other A/V devices. The A/V transceiver switches data between a program/service provider and the connected A/V devices. In one embodiment, the transceiver includes three primary modules, a main module including a CPU, a system bus, system memory, an infra-red (IR) control unit, an audio-visual bus, an A/V decoder, an A/V processor, an A/V encoder, an A/V connect module including an number of tuner/demodulators and a switch, and an optional CD ROM module. The A/V transceiver hardware is complemented with an operating system and software program which supports the functions provided in the A/V user interface. Additionally, a remote control device is provided to communicate with the A/V transceiver to interactively manage selection of program and service sources, selection program and service offerings from any selected source, viewing of selected program offerings, and interaction with selected service offerings. The remote control device is advantageously provided with a basic A/V control button group, an interactive control button group, an auxiliary control button group and a numeric key pad to facilitate control of the transceiver. The interactive control button group includes an info button, a list button, a categories button, a pix button, a mark button, a jump button, and a point device consisting of up, down, left and right arrow buttons, and a center select button.



US Patent No. 5,592,378 to Cameron et al. discloses a client-server type information network which enables a customer using a client machine to (i) search a database server for information about products offered for sale, as well as (ii) place an order to purchase a particular product.

U.S. Patent No. 5,583,560 to Florin et al. discloses an interactive audio-visual (A/V) transceiver coupled to a television and/or telephone (T/T) cable, a TV, a video recorder (VCR), and other A/V devices. The A/V transceiver switches data between a program/service provider and the connected A/V devices. In one embodiment, the transceiver includes three primary modules, a main module including a CPU, a system bus, system memory, an infra-red (IR) control unit, an audio-visual bus, an A/V decoder, an A/V processor, an A/V encoder, an A/V connect module including a number of tuner/demodulators and a switch, and an optional CD ROM module. The A/V transceiver hardware is complemented with an operating system and software program which supports the functions provided in the A/V user interface. Additionally, a remote control device is provided to communicate with the A/V transceiver to interactively manage selection of program and service sources, selection program and service offerings from any selected source, viewing of selected program offerings, and interaction with selected service offerings. The remote control device is advantageously provided with a basic A/V control button group, an interactive control button group, an auxiliary control button group and a numeric key pad to facilitate control of the transceiver. The interactive control button group includes an info button, a list button, a categories button, a pix button, a mark button, a jump button, and a pointing device consisting of up, down, left, and right arrow buttons, and a center select button.

U.S. Patent No. 5,572,643 to Judson discloses a method of browsing the Worldwide Web of the Internet using an HTML-compliant client supporting a graphical user interface and a browser. The method begins as a web page being displayed on the graphical user interface, the webpage having at least one link to a hypertext document preferably located at a remote server. In response to the user clicking on the link, the link is activated by the browser to thereby request downloading of the hypertext document from the remote server to the graphical user interface of the client. While the client waits for a reply and/or as the hypertext document is being downloaded, the browser displays one or more different types of informational messages to the user. Such messages include, for example, advertisements, notices, messages, copyright information and the like.

U.S. Patent No. 5,532,735 to Blahut et al. discloses a technique for an interactive television ("ITV") system wherein viewers are allowed to select a desired level of advertisements with which they are provided. The technique comprises transmitting to an interactive services subscriber location a program and a set of advertisements (collectively referred to as a "show"). The set of advertisements is selected based upon an input from a user associated with the interactive services subscriber location. The input comprises an indicator of an amount of advertisements in the set of advertisements. Another feature of the ITV system described is that it allows for adjusting an amount of a bill of a subscriber to interactive television services based upon the amount of advertisements viewed in a show.

U.S. Patent No. 5,528,490 to Hill discloses an electronic catalog system and apparatus for producing information related to a selected product on a remote computer. The system and method performs the steps of storing and maintaining variable data and constant data related to a

plurality of products in a memory of a main computer and storing constant data related to a plurality of products in a memory of a remote computer. A product is then selected from the remote computer memory for which product information is desired. A constant data revision status in the memory of the remote computer, and constant data in the memory of the remote computer is updated with constant data stored in the memory of the main computer, if necessary. Variable data related to the selected product is then transmitted from the main computer to the remote computer and integrated with constant data stored in the memory of the remote computer associated with the selected product to provide product information related to the selected product including both constant and variable data. The electronic catalog system can detect pirated copies of the data or program stored in the remote computer and prevent the original copy and all pirated copies from accessing data in the main computer.

U.S. Patent No. 5,524,195 to Clanton III et al. discloses a graphical user interface for displaying and selecting video programs, such as video on demand, which includes a video on demand server coupled to a communication medium. A plurality of settop box receivers are coupled to the communication medium for receiving digitized programming in the form of movies and the like from the video on demand server. The settop box includes a central processing unit (CPU) coupled to a memory and other electronic modules. The CPU generates and displays a graphical user interface on the subscriber's television. The graphical user interface is based upon a metaphor in which a world of spaces are organized as part of a studio back lot through which a user may navigate. The back lot includes a Poster wall which presents to the user a series of movie posters representing available selections. When a user touches a Poster on a touch sensitive screen of the television, the CPU generates an animation which displays the Poster coming off of the wall and appearing in the foreground of the screen. If a subscriber selects the Poster to view a feature presentation, the video on demand server downloads the selected video which is displayed on the television. The interface of the present invention further includes Extras which appear in animated form on the interface and move freely between spaces within the studio back lot metaphor. If a user selects an Extra, the Extra is transformed into a movie poster or advertisement. The user may then select the Poster and view the feature presentation.

U.S. Patent No. 5,448,046 to Swartz discloses a method of updating inventory markings by reading bar code symbols on products using a portable bar code symbol reader, and then using such bar code information to access product price and identify information from a database.

U.S. Patent No. 5,398,336 to Tantry discloses an object-oriented architecture for a factory floor management software system in which factory floor entities are modeled as factory objects within a relational database. The architecture includes X-terminal or bar code devices for facilitating user interaction with the system via one or more of the factory floor entities; Application Engines for processing user interaction of events and generating application service requests; and Application servers for processing the application service requests and generating database service requests in response. These database service requests are utilized to retrieve, manipulate and update data stored within the relational database. Communication Managers are employed for coordinating interprocess communication between the Application Engines, the Application Servers, and the Database Servers. Each of these major components are distributed among computer resources that are networked across the factory floor.

U.S. Patent No. 5,355,472 to Lewis discloses a hypertext data processing system wherein data sets participating in the hypertext document may be edited, the data processing system

inserting tags into the data sets at locations corresponding to the hypertext links to create a file which is editable by an editor and the data processing system removing the tags, generating a revised data set and updating the link information after the editing process.

U.S. Patent No. 5,333,237 to Stefanopoulos et al. discloses a computer-aided system comprising hypermedia structured expert system and a hypermedia-structured multi-level electronic document archive linked thereto. The expert system includes a knowledge base, and an inference engine that interacts with the knowledge base to generate advice. A hypermedia interface having knowledge base transfer means is provided on a display that includes selectable areas that provide access to active and passive documents in the document archive. The document archive includes active and passive electronic documents interlinked by means of the hypermedia interface and linked to the system by means of the hypermedia interface. Each active and passive electronic document includes active document transfer means that provide for transfer from the active document to another active document, a passive document, or a knowledge base linked thereto. The expert system, and the active and passive documents may also include knowledge base transfer means provided on the display that include selectable areas that provide access to additional linked expert systems. The present invention provides an expert system that incorporates the ability to have both electronic-based documents and an expert system coexist within a single computer program. This enables a developer to interlink both the expert system and the electronic documents as desired to permit smooth uninterrupted movement between them.

U.S. Patent No. 5,319,542 to King, Jr. et al. discloses a system that facilitates electronically ordering items from suppliers. The system is comprised of an Electronic Catalogue and an Electronic Requisition facility. The Electronic catalogue includes a Public Catalog and a Private Catalogue. The Public Catalog is stored on a publicly available database for access by customer/Requestors. The Private Catalogue is resident on a Customer's computer system and may contain unique pricing data based on pricing agreements. The Electronic Requisition facility is used by the Customer/Requestors to electronically create purchase requisitions based upon the information provided in the catalogues and route the requisitions through the appropriate approval process within the enterprise. Requisitions are then processed through the customer's procurement system and transmitted electronically as purchase orders to Suppliers.

U.S. Patent No. 5,307,456 to MacKay discloses a network multi-media production and authoring system. A real-time network referred to as an "AV LAN" is defined. Coupled to the AV LAN are a number of shared multi-media production resource devices. These multi-media production resource devices include video tape recorders, audio tape recorders, video titling devices, graphics devices, special effects generators, etc. Also connected to the AV LAN are a number of workstations which are used to control the production resources connected to the AV LAN. The production resources are connected to the AV LAN through an interface unit known as a 'device translator'. The device translator is a microprocessor-driven device that translates coded messages received over the AV LAN into specific commands which the particular production resource understands. The edit workstations present the user with an intuitive graphical user interface that enables the user access to the various production resources in order to create, define, edit, and store elements for use in a multi-media production. The scalable nature of the AV LAN system allows users to design and build AV LAN networks to suit their particular needs. An AV LAN system can be as simple as a single workstation connected to a single production resource device. The AV LAN can be expanded into an entire production, editing, and post-production studio. This is accomplished by coupling together several individual AV LAN networks using a

network bridge. Efficient organization of such a large system can be accomplished by grouping together like-kind production resources onto the same local AV LAN network.

US Patent No. 5,288,976 to Citron et al. discloses the use of bar code reader connected to a telephone network, in order to read bar codes that have instructions and commands encoded therein relating to particular kinds of action to be taken (e.g. dial action).

U.S. Patent No. 5,264,822 to Vogelmann et al. discloses a system for delivering audio advertising messages to shopping carts moving through a plurality of spatially defined transmission zones arranged in the aisles of a store. In the illustrative embodiment, a plurality of transmitters of compact construction are each attached to a shelf within the store. Each shelf transmitter has a spatially defined transmission zone of selected geometry and predetermined dimensions so as to occupy an assigned region of space within one of the aisles in the store. When any one of these transmitters detects a shopping cart residing in its spatially defined transmission zone, the transmitter transmits over its spatially defined transmission zone a modulated signal carrying an audio message provided by a playback mechanism within the transmitter. A receiver on the detected shopping cart demodulates the received modulated carrier signal and produces an audible signal of the audio message provided by the playback mechanism in the transmitter. As a result of the present invention, the same carrier frequency can be used by each shelf transmitter throughout the store, permitting the use of identical shelf transmitters, while the construction of the shopping cart receivers is made remarkably simple and inexpensive.

U.S. Patent No. 5,029,104 to Dodson et al. discloses a distributed processing system which includes a host and at least one connected work station. At the host there are included heuristic logic circuits which response to information objects received at the host to determine the likelihood of use of each such object by the work station. Information objects likely to be used at the work station are voluntarily transmitted by the host to the work station prior to a request being made by the work station.

U.S. Patent No. 4,841,132 to Kajitani et al. discloses an optical bar code reading section that reads desired program information from a program medium containing program information for automatic broadcast program recording, such as channels, dates, and start times and end times, in bar code form. After the program information thus read have been temporarily stored in a program memory section, a transfer switch is operated so that the program information stored in the program memory section are converted to infrared remote control signals and are then transmitted in a wireless manner to an electronic equipment (e.g., a video tape recorder) to be controlled, thereby recording the program for the recording of the desired broadcast program.

U.S. Patent No. 4,775,935 to Yourick discloses a multimode video merchandiser system that utilizes two levels of inductive learning to derive rules for selecting the sequence in which images of products stored on a videodisc are presented on a video monitor to a user. The first level of inductive learning generates rules from market survey based, consumer profile attributes assigned to items selected by previous users to determine the profile of the consumer most likely to be using the system at any given time, and to present the items in a sequence most likely to appeal to such a user. The second level of inductive learning utilizes a set of product characteristic attributes assigned to items selected by the current user to determine that user's preferences, and to modify the sequence of presentation to display first those items possessing the preferred characteristics.

U.S. Patent No. 4,654,482 to DeAngelis discloses a terminal that provides for ordering merchandise from any one of a plurality of merchants over the direct distance dial telephone network while remaining at home. Printed merchandise codes are electronically read by a wand of a bar code reader that is passed thereacross, automating data entry. Separate or integral memory cartridges carry a set of recognition data for each merchant order receiving device, the recognition data being required to validate the entry of an order in an order receiving device. A liquid crystal character display, indicator lights and user actuated switches are provided for guiding a user through the ordering sequence for each merchant.

WIPO Publication No. WO 01/39001 A1 by Neomedia Technologies, Inc. discloses a network-based system and method that permit a publisher to generate and encode content to be readily accessed by codes or indicia, such as bar codes, and which may be associated with advertising related to the content via the codes. The system supports composer, reader, discovery, and static web page interfaces for permitting users to act as publishers, readers, or browsers, using the codes for efficient and rapid access of content.

WIPO Publication No. WO 01/15021 A2 by DigitalConvergence.Com Inc. discloses a method for establishing a connection between a user and a remote location on a computer network, including multiple embodiments. A web browser may be opened and launched in response to an audible signal received at the user location. The web browser automatically retrieves and displays information associated with the received audio signal from a remote site. A bar code which has no embedded routing information may be scanned to extract bar code information. The bar code information is then utilized to obtain routing information which directs a user to the remote location. A web browser may be launched by a non-browser input which is correlated to simulate a predetermined browser input. The web browser automatically retrieves and displays information from the remote site. A unique code which has no embedded routing information may be received at the user location. Network routing information is then associated with the unique information and utilized to direct a user to the remote location. A product code having product information is disposed in close association with the subject product. The product information is then extracted from the code and network routing information is associated with the product information. A tool having a unique ID is utilized in conjunction with a user computer. In response to utilizing the tool, the user is connected to a remote location associated with the unique ID of the tool.

WIPO Publication No. WO 01/51035 A2 by DigitalConvergence.com, Inc. discloses a method of conducting an on-line transaction. A user at a PC of a first location completes a profile information sheet and transmits it across a secure network to a central registration server at a second location also disposed on the network. The central registration server transmits a unique bar code and associated unique ID back to the user PC at the first location, in response to the user sending the completed profile information sheet to the registration server. When the user accesses a vendor server disposed on the network for the purchase of products and/or services, the user transmits the bar code to the vendor server when prompted to complete a vendor payment form. The vendor server sends the bar code to the central registration server where the bar code is matched to the user profile information. The profile information is returned to the vendor server and automatically inserted into the vendor payment form. The vendor server then processes the transaction according to the credit information provided. Some or all fields of the vendor payment form are inserted with encoded information depending upon the user selecting a standard or invisible mode of payment, respectively. The payment form is then presented to the user at the

user PC for acceptance or rejection of the transaction.

WIPO Publication No. WO 01/15019 A2 by DigitalConvergence.com, Inc. discloses a method for controlling a computer wherein one or more remote locations disposed on a network are accessed in response to scanning optical code. A first computer disposed on the network connects to a scanner for scanning the optical code of a product by a user. The scanner is uniquely identified with a scanner distributor by a scanner identification number. A second computer disposed on the network is accessed in response to the user scanning the optical code with the scanner, wherein a lookup operation is performed at the second computer to match the scanner identification number with the scanner distributor to obtain remote routing information of one of the remote locations. The remote routing information is returned from the second computer to the first computer in order to access the one or more remote locations disposed on the network. The one or more remote locations are accessed to return remote information to the first computer for presentation.

WIPO Publication No. WO 01/01586 by Lyte, Inc. discloses a system for seamlessly integrating multiple new and existing product, service, entertainment, programming and information distribution channels including physical and electronic malls through a computer controlled fiber optic broadband network. The system facilitates the deliver of entertainment, brand programming, products and services to consumers throughout the world, twenty-four hours a day, seven days a week, employing and seamlessly integrating the existing physical retail mall infrastructure and the relatively new electronic mall accessible over the Internet.

WIPO Publication No. WO 00/65509 by Qode.com, Inc. discloses a system and method for receiving a bar code from a user, retrieving information concerning an item identified by the bar code, and providing the information to the user. The information may include a hyperlink, a description, summary or review of the item, network address, etc. Producers, vendors, manufacturers and other entities may register bar codes and information about items, including electronic commerce opportunities. A graphical display returned to a user may thus include various product details, advertisements, purchasing opportunities and other data. The graphical display may be tailored to a particular entity, such as the operator of the system or an organization that provided the user with a bar code scanner. The system includes one or more databases to store registered bar codes, information relating to items and components of graphical displays. One or more servers are also included, to maintain the databases and communicate with users and other entities.

WIPO Publication No. WO 00/70525 by Silicon Stemcell, LLC discloses a scanner used to scan machine-readable code on an object, which may be the universal product code on a vendible product. The data from the machine-readable code is transmitted to a portal server and used to select a supplier of the vendible. Information identifying the supplier may be sent to the user of the scanner, or information identifying the user sent to the supplier. Further arrangement may be made to deliver the vendible to the user's location, or provide the vendible to the user at the supplier's location.

WIPO Publication No. WO 00/63780 by Silicon Stemcell, LLC discloses a method for bridging the gap between the virtual multimedia-based Internet world and the physical world of tangible object media, such as print media. More particularly, a method for managing a domain name service based on initiating a communication from an object containing provider information

using a scanner, a portal server and a receiver connected across a network is disclosed. The method involves scanning a machine-readable code containing a link information corresponding to the provider information from the object using the scanner and storing the machine-readable code in a memory. The link information is then extracted from the machine-readable code in the memory. A user input information corresponding to the provider information is also obtained and stored in the memory. The link information and the user input information are then sent to the portal server via the network. The portal server receives the link information and the user input information and selects a multimedia information sequence corresponding to the link information and the user input information. The multimedia information sequence is then sent to the receiver via the network. The receiver receives and stores the multimedia information sequence and plays the sequence automatically or in response to a stimulus such as a user request.

WIPO Publication No. WO 00/50844 by G02 Systems, Inc. discloses a system and method for automatically providing services over a computer network, such as the Internet, for users in a mobile environment based on their geographic location. An application program is installed on a client computer system that prompts the user to input information. The application program builds a data packet comprising location information and user information. The client computer system connects with a server coupled to a computer network and transmits the electronic data packet to the server. The information in the data packet is used to formulate a database query, the result of which is an address (URL) of a particular enhanced server that matches the client's request. The URL is transmitted to the client. The client computer system launches a web browser and connects to the enhanced server. Upon connection relevant data customized for the client's location is automatically displayed without additional input from the user.

WIPO Publication No. WO 00/43862 by Silicon Stemcell, LLC discloses a method of communicating multimedia information using a scanner for machine-readable code containing a link information corresponding to a provider information depicted on the printed medium, a user interface for obtaining user input information corresponding to the provider information, a communication bridge for sending the link information and the user input information via the network, a receiver in communication with the scanner, capable of receiving the link information and the user input information, and further capable of receiving and playing a multimedia information sequence, and a portal server in communication with the scanner via the network capable of selecting a multimedia information sequence corresponding to the link information and the user input information.

WIPO Publication No. WO 00/45302 by Barpoint.com, Inc. discloses an interactive search system for use primarily with a global computer network, e.g. the Internet, using a product identifying barcode, such as a UPC code to rapidly and effectively obtain a supply of related information for presentation to a user. A computer may be used to input a UPC code, taken from a package or advertisement or pre-stored in the computer, to an implementing server on the network. The server contains a database of product and manufacturer identifying UPC codes and uses the input UPC code and the database to identify the manufacturer and is programmed to then perform a search of the network to locate sites relating to or operated by the manufacturer. The server may search the network on a product basis to locate other sites containing the UPC under search.

WIPO Publication No. WO 00/28455 by A.C. Properties B.V. discloses a system that facilitates web-based comparison shopping in conventional, physical, non-web retail environments. A wireless phone or similar hand-held wireless device with Internet Protocol

capability is combined with a miniature bar code reader (installed either inside the phone or on a short cable) and utilized to obtain definitive product identification by, for example, scanning a Universal Product Code (UPC) bar code from a book or other product. The wireless device transmits the definitive product identifier to a service routine (running on a Web server), which converts it to (in the case of books) its International Standard Book Number or (in the case of other products) whatever identifier is appropriate. The service routine then queries the Web to find price, shipping and availability information on the product from various Web suppliers. This information is formatted and displayed on the hand-held device's screen. The user may then use the hand-held device to place an order interactively.

WIPO Publication No. WO 00/16211 by DigitalConvergence.com, Inc. discloses a method for interfacing scanned product information with the manufacturer of the product over a global communication network. Subsequent to scanning product bar code information, a proprietary wedge interface adds additional information in the format of keystroke data. The wedge comprises firmware which adds additional keystrokes to open a web browser window for insertion of the URL/bar code data string, and to send the data. The information is then transmitted to an advertiser reference server which contains a database of products and their associated advertiser URLs. The advertiser reference server returns the URL of the product file located on an advertiser's information server to the source computer. The source computer then retrieves the product information from the advertiser's server for processing.

WIPO Publication No. WO/16205 by DigitalConvergence.Com, Inc. discloses a method for controlling a computer by inputting an analog signal into the computer to control a web browser software application. The analog signal contains a trigger signal which activates proprietary software, and a product identifier. The proprietary software launches the web browser application on the computer, extracts the product identifier, and creates an appended data string by appending server address (URL) routing information to the product identifier information. The appended data string is automatically inserted into the web browser as keystroke data and routed to an advertiser reference server. The appended routing information directs communication to the advertiser reference server which contains a cross-referenced database of advertiser product identifier information and associated advertiser server URLs. The advertiser server URL and a request for product information relevant to the product identifier is returned to the computer web browser where it is automatically redirected to the advertiser server containing the advertiser product information. The advertiser product information is then returned to the computer for display.

WIPO Publication No. 99/33013 by A.C. Nielsen Company discloses a market research database which contains a plurality of sets of product related information. Each set of product related information relates to a corresponding market aspect of products. For example, a set may relate to packages in which products are contained, another set may relate to brand names of products, still another set may relate to business enterprises which package, distribute, or market products, and so on. Each set includes a current layer of product related information, wherein the current layer of product related information is in current time. The product related information in the current layer of each set of product related information includes a control designator. The control designator permits direct access to the current layer of product related information substantially exclusive of other product related information.

WIPO Publication No. WO 99/33014 by A.C. Nielsen Company discloses a market



research database which includes industry code information containing industry codes (such as UPCs), naked product information containing information about naked products, package information containing information about packages, and product definition information linking naked product information, package information, and industry codes. Accordingly, the storage of information in the database is not dependent upon UPCs or other industry codes, making access to product related information difficult. The use of naked product information, together with the way of identifying products, facilitate a third normal form data-base.

WIPO Publication No. WO 98/19259 by Assignee of record, and to which the present Application claims priority, discloses using a conventional bar code symbol reader to read a UPC label on product which, in turn, is used to access a corresponding URL in the database for accessing a HTML-encoded document on the WWW by providing the accessed URL to a client computer having an Internet browser program.

WIPO Publication No. WO 99/00756 by Telia AB discloses a system and method for collecting and distributing information using an electronic medium such as the Internet, and in particular, a system and method for providing customer care service (CCS) to system users. Information on a company offering products and/or services for sale using the Internet, is distributed to system users (consumers) on request, and the distributed information is based on information collected from system users, relating to those of the selling companies from whom products and/or services for sale using the Internet, is distributed to system users (consumers), on request. The distributed information is based on information collected from system users relating to those of the selling companies from whom products and/or services have been obtained by the system users. The collected information relates to each system user's trading experiences with the selling companies and facilitates the provision of a customer care service to system users. The customer care service is offered by a CCS operator in collaboration with the selling companies, and enables a selling company to represent itself as a reliable and responsible supplier through use of statistics from actual customers' experiences of the company. Since all the advertising is handled by an independent third party company, the customer care service gives a selling company the opportunity to advertise itself as a reliable and responsible supplier, on the basis of statistics derived from actual customers' experiences of the company.

WIPO Publication No. WO 98/58320 by Pinnacle Intellectual Property Services-International, Inc. discloses a small, shelf-mountable kiosk unit for providing product and/or service information and for processing customer orders. A customer may actuate the kiosk through a programmed source of information in the kiosk located at a facility such as a health care provider facility.

WIPO Publication No. WO 98/57295 by Pinnacle Intellectual Property Services-International, Inc. discloses a kiosk system for providing information to customers and for processing customer orders for items through kiosk units. A customer may place an order by selecting items from an electronic catalog located at a facility such as a pharmacy. The kiosks include a printer placement, monitor installation, a magnetic strip reader for accepting credit card or debit card transmissions, a UPC bar code scanner for scanning bar codes on product labels to automatically provide on screen information. Purchase orders may be transmitted to one or more distribution center computers where they are processed and filed.

WIPO Publication No. WO 98/51035 by Neomedia Technologies, Inc. discloses a method

of and system for accessing electronic resources on the World Wide Web (WWW) by reading machine-readable data (e.g. a URL-encoded bar code symbols) printed on documents.

WIPO Publication No. WO 98/51077 by Neomedia Technologies, Inc. discloses a method of providing a link between an information signal (e.g. broadcast, cable television and/or radio signal) and networked information resources on the Internet.

WIPO Publication No. WO 98/51036 by Neomedia Technologies, Inc. discloses a scanner-enhanced remote control unit and system for automatically linking to on-line information resources. As disclosed, the scanner-enhanced remote control unit includes a bar code symbol reader for reading URL-encoded bar code symbols printed on documents, and automatically linking to the information resource located at the encoded URL.

WIPO Publication No. WO 98/38589 by Inframedia Corporation discloses a system for use in a retail store that permits consumers to identify themselves to an in-store merchandising system prior to check-out. As a result, the consumer may be presented with promotional offers and other information specifically targeted to the particular consumer. The consumer may be identified in a number of ways, such as by swiping magnetic cards and card readers attached to shopping carts. Promotional offers made to the consumer may be based on previous habits of the particular consumer, the consumer's location in the store, demographics, or purchase triggers. A consumer may also receive targeted information with respect to particular items considering purchase such as, for example, to determine the appropriateness of purchasing particular food items and prescription medication and/or over the counter drugs. Retailers and product manufacturers may therefore use information to better plan product placement, to be more responsive to customer demand, and to otherwise understand the purchasing habits of their customers.

WIPO Publication No. WO 98/38761 by Neomedia Technologies, Inc. discloses a method of and system for accessing information resources on the WWW by reading a URL-encoded bar code symbol printed on a document. As disclosed, a bar code symbol reader is used to read a URL-encoded bar code symbol, and a Web-enabled browser program, operably connected to the bar code reader, accesses the information resource located at the URL, and displays the same for viewing by the user.

WIPO Publication No. WO 98/34458 by Productive Technologies, Inc. discloses a system for dispensing and redeeming electronic discount coupons in a store. A card-dispensing kiosk collects information from a customer and subsequently issues a "smart card" for storing electronic coupons. Upon completion of shopping, the customer redeems the electronic coupons at the check-out area, by inserting the card into the check-out station. During checkout, when UPC product data corresponds to coupons stored on the card, the customer is credited with the value of the corresponding coupon.

WIPO Publication No. WO 98/35297 by Personalogic, Inc. discloses a system which processes information to identify product choices within a product domain for a user, and presents structured data concerning attributes of products in the product domain to the user in a readily understandable and efficient manner, allowing the user to make the best choice according to his or her own personal profile. A user interface presents a sequence of input prompts to the user to gather preference and requirement data for a plurality of attributes of products in the product domain. A decision engine is coupled to the user interface and filters the product domain to

present a set of products according to the gathered preference and requirement data as product choices to the user.

WIPO Publication No. WO 98/29822 by Buildnet, Inc. discloses systems, methods, and computer program products which synchronize product fabrication schedules with supplier schedules. A fabrication schedule is obtained from a fabricator data processing system, and supplier schedules are obtained from respective supplier data processing systems. Restrictive links are established between the fabrication schedule and the supplier schedules. Each restrictive link defines the supplier that will perform a work stage, and can also define the starting and ending times for both fabrication and supplier schedules. Float time preceding a selected activity starting time is assigned and utilized to absorb delays in completing activities preceding the selected activity. A computer based product catalog system automatically distributes and updates product information.

EPO Publication Nos. EP 0 856 812 A2 and EP 0 856 812 A3 by Symbol Technologies Inc. disclose a portable shopping and order fulfillment system, wherein a portable data terminal having a bar code symbol reader is used to read bar code symbols on consumer products in order to look up pricing and other product information maintained within the retailer's database.

WIPO Publication No. WO 98/25198 by Streamix Corporation discloses an interstitial content display system and method for a Web browser wherein given executable code shares the Web browser's address space and is used to capture Web browser events. The Web browser events, in turn, are used to drive a display engine that generates a viewer window. The viewer window preferably includes appropriate user interface controls, and it is re-positionable and re-sizable both manually and automatically. In operation, the executable code is responsive to a given browser event, such as activation of a URL in a source Web page, for controlling the display engine to overlay the viewer window on the browser display window and to display given content therein during the interstitial delay period while the browser waits for return of the target Web page. Upon a given occurrence, such as receipt of the target Web page (or some portion thereof), the user window may be selectively hidden or resized and re-positioned (into a so-called "mini-window") to allow the interstitial content display to complete without interfering with the user's viewing of the target Web page.

WIPO Publication No. WO 98/24036 by Metrologic Instruments, Inc. discloses a bar code symbol driven system for accessing information resources from information servers connected to communication networks, including the Internet. The system includes a bar code symbol reader for reading bar code symbols encoded with information representative of information resources stored in information servers connected to the Internet and supporting the TCP/IP standard. A computing platform is provided for supporting an Internet browser. A telecommunication modem is operably connected to the computing platform in order to establish a two way telecommunication link between the Internet browser and an Internet service provider connected to the Internet. In response to reading bar code symbols, the Internet browser automatically accesses information resources from Internet information servers using the information encoded in bar code symbols read by the bar code symbol reader.

WIPO Publication No. WO 98/24049 by Metrologic Instruments, Inc. discloses a novel transaction method and system, wherein a transaction Java-Applet is embedded within an HTML-encoded document stored in an HTTP server at a predetermined URL. When a code symbol

encoded with the URL is read using a code symbol reader interfaced with a Java-enabled Internet terminal, the corresponding HTML document is automatically accessed and displayed at the terminal, and the transaction Java-Applet initiated for execution so that the customer, consumer or client desiring the transaction can simply and conveniently conduct the information-related transaction over the Internet. The transaction-enabling Internet terminal can be in the form of an Internet kiosk installed in a public location, such as conventional ATMs.

WIPO Publication No. WO 98/21713 by Precise Information LLC discloses a host computer which is used as the overall control point of a merchandising system. The host computer is interconnected to a brand corporation computer wherein a manufacturer, distributor, or other entity supplying products and offering discounts on products can update the host computer with information relative to specific products. The host computer is also interconnected to an in-store computer which serves as an interface to consumer interface kiosks and in-store points of sale. The host computer is used to track consumer buying behavior through information provided by a point-of-sale. The host computer analyzes the information according to brand and retail criteria, and based on a consumer specific profile, a consumer specific discount is determined for each consumer for each product on promotion in the program. A discount may be provided by the retail store and/or the brand corporation. When a consumer is specifically identified at a kiosk, a customized list of discounts is printed for the specific consumer. The list includes the new "targeted net price" for the promoted product, which is the store price less the consumer specific discounts. This price is automatically applied to that product at the point of sale. Consumer home shopping behavior may also be used to refine the consumer profile. Additionally, the consumer profile may be used to target discount and promotions to home shoppers. The consumer profile may also be used for determining specific consumers that should be offered free product promotional offers. The behavior of the consumer after receiving the free product sample is used to refine the consumer profile and to evaluate the efficacy of the free product sample transaction.

WIPO Publication No. WO 98/21679 by Microsoft Corporation discloses a system for and method of conducting commerce over a distributed network to manage merchant and product information in an electronic shopping basket, payment source information in an electronic wallet, and shipping address information in an electronic address book, all of such information being stored on a consumer computer. A commerce client running on the consumer computer is configured as a MIME handler and extends the functionality of a standard Web browser to support computer based shopping. A merchant site Web server provides HTML-coded Web documents which describe merchant products and which host computer-based shopping options. The HTML-coded Web documents contain function-calling information by which consumer selected options invoke shopping related functions on either the merchant (server) computer (104) or the consumer (client) computer.

WIPO Publication No. WO 98/20411 by Neomedia Technologies, Inc. discloses using an integrated "mouse-type" bar code scanner 34, as disclosed in US Patent No. 5,448,050, in order to read a URL encoded bar code symbol, to provide the symbol character data thereof to a client computer 32 running an Internet browser program, as shown in Fig. 1, and thus access an information resource located at the specified URL.

WIPO Publication No. 98/20440 by Telxon Corporation discloses a portable data collection device adapted to be mounted to a shopping cart. The device includes a housing having

a clamping assembly for releasably clamping the housing to a pushing bar of a shopping cart. The housing defines an interior region supporting device electronics. The device further includes an interactive touch sensitive visual display screen, and a retractable, tethered dataform reader releasable mounted on the housing. When mounted on the housing, an imaging assembly and an illumination assembly of the reader are continuously actuated to read a dataform presented to the reader. When removed from the housing, the reader is actuated by depressing a trigger on the reader. The device also includes a magnetic stripe reading assembly, a printer and communications circuitry including a radio communicator module. A locator provides position information of the portable collection device relative to a distribution facility via data interchange with a plurality of transceivers. Information selectively obtained from the transceivers allows for selective retrieval and display of information on the visual display screen which is keyed to product type or location of the portable collection device.

WIPO Publication No. WO 98/20434 by Vayu Web, Inc. discloses a system for and method of creating, transmitting, and receiving web pages from a web server. The present invention enables a user to create a new web site by either creating new web pages or extracting information from previously created web pages. The invention enables a web site master to control the entire presentation of data to the user. In one embodiment of the present invention, a web site can include a first web page having a main menu. The present invention then permits the web site master to prepare a preset sequence of web pages that are displayed to the user for each menu item. The user of the web page selects one menu item from a menu display and then can passively receive information in a logical sequence. The control of the web page sequence can be used by advertisers, for example, to effectively present all information deemed helpful in attempting to convince the user to use the advertised product or service. In contrast to conventional web sites, a user accessing a web site developed according to the present invention will have a predefined sequence of web pages displayed in order to maximize the benefit to the web site master, e.g., to increase the behavioral modifications of the client due to controlled advertising. The present invention also increases the effectiveness of web sites having multiple web pages by using an artificial intelligence preloading methodology to reduce the delay in displaying a web page on the user's computer.

WIPO Publication No. WO 98/09243 by Internet Media Corporation discloses the use of four-digit jump codes which can be used to access the URL of a desired web site stored in a database operably connected to a Web site (e.g. the JumpCity Web Site). When the user is on-line at the special web site, entering in the four digit jump code automatically links the user to the Web site (corresponding to the jump code) to the JumpCity Web site, thus providing immediate access to the desired Web site for the user, without inputting the URL or address of the Web site.

European Publication No. EP 0 837 406 A2, like corresponding US Application No. 08/691,263, discloses that by "using this new system, any computer system equipped with a general purpose interface reader application (Browser 300) can create an interface 'on the fly' that is capable of reading processing information on the accompanying data record labels." Also, as disclosed therein, the interface reader application, termed "Browser" in Application No. 08/691,263 and indicated by reference number 300 in Fig. 18, is shown therein as comprising: a bar code acquisition engine 304; a parsing engine 305; a printing engine 306 with a printed data interface 307; and a communications engine 308 with a communications input/output interface 309.

WIPO Publication No. WO 98/06055 by Rapaport et al. discloses, in Fig. 2e and at lines 1-5 of Page 8, using a connector 221 to connect a bar code scanner device 219 to the I/O port 220a of a portable digital assistant (PDA) containing an Internet browser 106 and decoder software 115, so that an operator can scan an URL-encoded bar code and automatically address a Web page specified thereby. As disclosed, the PDA 220 is connected to the Internet and/or intranet computer network via a wireless connection 218.

Like US Patent Nos. 5,978,773 and 6,199,048 B1, both to Hudetz, et al, WIPO Publication No. WO 98/03923 by Ernestine, LLC discloses the use of a UPC/URL database in order to translate UPC numbers read from consumer products by a bar code scanner, into the URLs of published information resources on the WWW relating to the UPC-labeled consumer product.

WIPO Publication No. WO 97/37319 by IBM Corporation discloses, at lines 13-32 on Page 12 and in Figs 1B and 3 thereof, a system for serving product information to consumers using a UPC product database (136 in Figs 1B and 3), similar to the one disclosed in WIPO Publication No. WO 97/01137 (Hudetz, et al./Solar Communications, Inc.) and EPO Publication No. EPO744856 (Penzias/ATT&T IPM, Inc. As disclosed in WIPO publication No. WO 97/37319, a bar code symbol reader (118) connected to a client computer system (104, 106, 112) is used to read a UPC (117) on a consumer product (115), and then the recovered UPC number is used to access the UPC product database (136) and access URL information (325) keyed to the inputted UPC number. The client computer system (102) then uses the URL to access product information (such as product name, unit price, and product location in store) for display to the consumer.

European Published Patent Application No. EP O 822 535 A3 to AT&T Corporation discloses a system and method for providing targeted, interactive, multimedia advertisements and electronic commerce capability on a hypertext network. Advertising software from a server is loaded on a user's client computer through a browser at the user's request. The display screen of the client computer is partitioned into a browser area, which retains the full functionality of the underlying browser, and advertising area. Controls affecting the presentation and content of the advertisements streamed from the server to the client computer are available to the user in the advertising area, as are secure purchase and electronic coupon controls.

WIPO Publication No. WO 97/21183 to Bell Communications Research, Inc. discloses a method and system for placing advertisements in a computer network. A server containing a collection of advertisements is placed in electronic communication with the computer network. The advertisements on the server are not tied to any particular page containing information on the network, but rather, are retrieved in response to a query entered by the user and dynamically mixed with the content of the pages returned in response to the query. The present invention displays the content pages with focused, targeted advertisement as a part of the page, in accordance with a particular layout. The advertisements can be made to satisfy a set of constraints requested by the advertiser, as well as the constraints of the publisher of the page. The system uses contracts to specify the marketing rules that link ads with specific queries, to permit advertisers to target a specific audience, and to guarantee a certain amount of exposure of the advertisement in prime advertising space. Algorithms are used to check for contract consistency to ensure that all contracts that are accepted can be properly satisfied. The present invention also provides a download delay-time advertising feature.

WIPO Publication No. WO 97/07656 to Backweb discloses methods and apparatus for selecting advertisements and other information from a computer network database based on user defined preferences and transmitting the selected advertisement in background mode over a communications link between the computer network and a local computer with minimal interference with other processes communicating over the communications link. This method includes monitoring the communications link and transmitting portions of the advertisement when the communications link line utilization is below a preestablished threshold. Methods and apparatus are also provided for displaying or otherwise presenting the selected advertisements on the user's computer. Additional methods and apparatus are provided for selecting and presenting information stored on a local storage media based on user defined preferences.

Like U.S. Patent No. 6,199,048 B1 to Hudetz et al., WIPO Publication No. WO 97/01137 discloses using a conventional bar code symbol reader 44 to read a UPC label 48 on a product which, in turn, is used to access a corresponding URL in database 60 for accessing a HTML-encoded document on the WWW by providing the accessed URL to a client computer 28 having an Internet browser program.

European Published Patent Application No. EP O 744 856 A2 to AT&T IPM Corporation discloses an apparatus for and method of establishing a communication connection to enable a customer or user at a first location to establish a connection to a predefined second network address (e.g., an 800 telephone number) and thereafter enter a product identifier code which is converted to a third network address of an agent which is used to establish a connection between the user and the agent.

WIPO Publication No. WO 96/30864 to Futurevision of America, Corp. discloses a device for generating and displaying a message. The present invention comprises a computer memory for storing the ad, message and searchable database in a memory, a distribution link for transmitting the ad, message and searchable database to a remote location for storing said message, and means associated with an end user workstation at the remote location for retrieving said ad, message and searchable database and displaying same on a monitor associated with the workstation at a time when the workstation is not in use.

WIPO Publication No. WO 95/15533 to Burke discloses a system for generating images representative of a store shelf which includes a retail space management system for generating information describing product and shelf sizes and locations in three dimensions, and including a code which is unique to each product. The products are typically commodity goods. A product database is used to store images of product packages which are accessible using codes unique to each product. A three-dimensional modeling and display system which takes size and location information from the retail space management system and generates three-dimensional models of each shelf and product and accesses the product database using the codes provided by the retail space management system to obtain images for each product. It generates a display of each product on each shelf by combining the obtained images and the generated three-dimensional models. The consumer may manipulate the display to change what is being viewed, to examine product packages and to purchase products.

The advertising publication for the Real Media Open AdStream (OAS) describes the traffic management system originally developed for Real Media's own central ad network for the purpose of controlling inventory, scheduling company campaigns, and mixing nationally and locally sold

campaigns, but later became a distributed product. The four major processes in Open AdStream, site set-up, campaign planning, ad delivery and analysis and reporting, are also discussed.

QRS's January 1998 KeyStone Vendor operating manual describes the QRS Keystone system as having a centralized relational database of product and UPC information for facilitating vendors' ability to update their product catalogs and keep product information current and vital. Electronic Data Interchange (EDI) is the medium that both the vendor uses to send product information and retailers use to request and retrieve product information. Vendors load their product information, via EDI, into the data base. In turn, Retailer trading partners access this database to retrieve the information.

The product brochure for QRS Corporation's "The Catalog" describes a centralized product database that uses the retail industry standard UPC numbering system to create an electronic UPC catalog of various products accessible to vendors and retailers twenty four hours a day. After assigning a UPC number to each item, the manufacturer organizes and sends the data, via an 832 EDI transmission, or tape to QRS to be loaded into the Catalog. Changes to the data can be made on a daily basis. Retailers with access to a manufacturer's data can view and download the data once it has been added or updated.

QRS's January 1998 Keystone Retailer operating manual provides a description of the QRS Keystone Retailer Database wherein, on Page 7 thereof, it states that the QRS Keystone Retailer Database facilitates manufacturers (i.e. vendors) to maintain a catalog of product and UPC information for transmission to the QRS Keystone Database using EDI technologies, and subsequent access by subscribing retailers (e.g. trading parties) who also use EDI techniques to access the catalog and purchase consumer products from the QRS catalog. As detailed on page 87-89, the QRS Keystone Database does not enable retailer trading parties to access URLs pointing to consumer product information on the WWW (and linked) to UPC information, or according to different information category types.

The web-based product brochure for Vialink's syncLink<sup>SM</sup> Item Catalog describes an Internet-accessible shared database that allows retailers and suppliers to exchange product, price, and promotion information electronically.

The web-based publication for the JavaSoft JDBC<sup>TM</sup> describes a standard API that allows database developers to establish a connection with virtually any relational database, send SQL statements, and process the results.

The scientific article entitled "Animating the Ad" by Mark Gimein describes a method of Internet advertising that transforms banners into small programs that enable viewers to play games, get information, print out forms or give advertisers information about themselves.

The web-based publication for the Enliven Services Home Network describes the various services offered by Enliven, which include ad production consulting, campaign hosting, detailed campaign measurement and reporting, and free and unlimited usage of Enliven Network support services.

The web-based publication for the ThinkingMedia ActiveAds<sup>SM</sup> System describes a system for placing banner ads and reporting for E-commerce based on Java<sup>TM</sup> that includes features such



as secure, in-banner credit card transactions, subscription forms, games, animation and streaming audio.

The NCR Web Kiosk Solutions product brochure describes the features of the NCR 7401 Web Kiosk, which include full-motion video and audio, Internet browsers, wireless communications and connectivity for various peripherals, such as scanners, printers, speakers and magnetic stripe readers.

The Real Media article entitled "In-House vs. Out-Sourced Ad Serving" describes the differences between the Open AdStream (OAS) ad management software and other outsourcing Internet ad management technology.

The NeoMedia Technologies article entitled "IDOCs Linking the Worlds of Print and Electronic Man" describes a technology based on an invention described in U.S. Patent No. 6,199,048, in which a document is printed with a physical code similar to a hyperlink on a web page, that points to relevant data or processes on the Internet.

The Investors press release entitled "Applied Intelligence Group, Inc. Announces New Product Solution that Enhances its Core Vialink Service" describes the introduction of ItemXpress, a process that can be used by the retail industry to create a database of product information in an automated pricebook, and enhances AIG's viaLink service for the convenience and grocery store industry.

The scientific publication entitled "The Retail Store of the Future: Crest of the Third Wave" by Robert J. Corey et al., discloses at pages 30-31, that the "retailer must also provide technology-related activities and management support that will create individual customer interface and information systems, enhance technologically advanced consumer information access and purchase opportunities, incorporate and maintain applicable hardware and software to support customer transactions, and institute performance systems based on the lifetime value of the customer rather than short-term sales gains.

The March 28, 1997 Form 10KSB for Applied Intelligence Group, Inc. (now viaLink, Inc.) and viaLink's January 6, 1997 press release entitled "ViaLink Item Catalog Service Goes On-line" describes on pages 4-5 that the viaLink Item Catalog System and Service enables retail chains to develop and then maintain a "pricebook" database which contains information for all items offered for sale by the retailer in the store. The pricebook typically contains descriptions of the items, along with their Universal Product Codes ("UPCs"), purchase costs, retail sales prices, and any discounts or rebates to be received from the supplier. A subscribing retailer can use the viaLink Item Catalog Service to electronically retrieve product item information (e.g., item numbers, UPCs, descriptions, pricing information, deal and promotional pricing) that has been placed in the database by manufacturers, wholesalers, or other product suppliers. This information can be electronically loaded into the retailer's pricebook, which helps the retailer improve the accuracy and reliability of the pricebook. Product manufacturers can use its viaLink service to efficiently introduce new products, by electronically providing product and pricing information to retailers and wholesalers. Wholesalers and other suppliers can use the viaLink system and service to electronically provide product and pricing information to retailers by placing this information in the viaLink databases, and allowing the retailers to access these prices via the Internet. As disclosed, the databases in the viaLink Item Catalog System are specifically designed to manage

the complexity of the arrangements that exist between retailers and their wholesalers and suppliers (i.e. manufacturers), especially related to prices and promotions.

The Premenos product brochure entitled "" Premo Webdox--Extending the Reach of Electronic Commerce" describes high-level features of the Premenos Webdox electronic data interchange (EDI) system which, as described in the present Specification, can be used to help enable EDI capabilities between manufacturer-operated client subsystems and the UPN/TM/PD/URL relational database management subsystem (RDBMS) of the present invention.

The Premenos "Webdox General Information Manual" describes the structure and functions of the Premenos Webdox electronic data interchange (EDI) system in detail, which, as described in the present Specification, can be used to help enable EDI capabilities between manufacturer-operated client subsystems and the UPN/TM/PD/URL relational database management subsystem (RDBMS) of the present invention.

The scientific publication entitled "Smart Catalogs and Virtual Catalogs" by Keller describes an architecture for electronic catalogs called Smart Catalogs and Virtual Catalogs. Smart catalogs are searchable, annotated combinations of machine-readable (i.e., minimally processable) and machine-sensible (i.e., actually understood by the computer) product data. Virtual catalogs dynamically retrieve information from multiple smart catalogs and present this product data in a unified manner with its own look and feel, not that of the source smart catalogs. These virtual catalogs do not store product data from smart catalogs directly (except when caching for performance); instead virtual catalogs obtain current product data from smart catalogs to satisfy specific customer queries. Customers interact with smart catalogs and virtual catalogs through WWW or other interfaces.

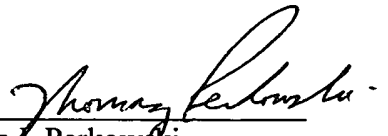
The pioneering paper entitled "World Wide Web: The Information Universe (1996)" by Tim Berners-Lee et al discloses the data model and protocols required to implement the World Wide Web (WWW), and compares them with various prior art systems.

A separate listing of the above references on PTO Form 1449 and a compact disc containing copies of the these references in .pdf format are enclosed herewith for the convenience of the Examiner.

The Commissioner is hereby authorized to charge any fee deficiencies or overpayments to Deposit Account No. 16-1340. A copy of this page is included herewith.

Respectfully submitted,

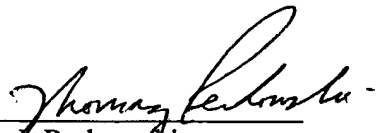
Dated: December 17, 2002

  
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The Commissioner is hereby authorized to charge any fee deficiencies or overpayments to Deposit Account No. 16-1340. A copy of this page is included herewith.

Respectfully submitted,

Dated: December 17, 2002

  
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Substitute for form 1449A/PTO

**INFORMATION  
DISCLOSURE STATEMENT  
BY APPLICANT**

Sheet

1

of

17

**Complete If Known**

Application Number	09/641,908
Filing Date	August 18, 2000
First Name Inventor	Thomas J. Perkowski
Group Art Unit	3625
Examiner Name	Y. Garg
Attorney Docket Number	100-040USA000

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	U.S. Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Intn'l Class / Sub Class
		Number	Kind Code (if known)			
		6,448,979 B1		Schena, et al.	09/10/2002	G06F 3/00
		6,430,554 B1		Rothschild	08/06/2002	G06F 17/30
		6,317,761 B1		Landsman	11/13/2001	G06F 17/21
		6,314,457		Schena, et al.	11/06/2001	G06F 13/00
		6,314,451 B1		Landsman et al.	11/06/2001	G06F 13/38
		6,213,394		Schumacher et al.	04/10/2001	G06K 15/00
		6,199,048 B1		Hudetz et al.	03/06/2001	G06F 3/05
		6,157,946		Itakura et al.	12/05/2000	G06F 15/16
		6,152,369		Wilz et al.	11/28/2000	G06K 07/10
		6,154,738		Call	11/28/2000	G06F 15/73

### U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Intn'l Class / Sub Class
		Number	Kind Code (if known)			
		6,141,666		Tobin	10/31/2000	G06F 17/21
		6,138,151		Reber et al.	10/24/2000	
		6,134,548		Gottzman et al.	10/17/2000	G06F 17/30
		6,125,388		Reisman	09/26/2000	G06F 15/16
		6,119,165		Li et al.	09/12/2000	G06F 9/455
		6,108,656		Durst et al.	08/22/2000	
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		6,091,411		Straub	07/18/2000	G06F 7/00
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		6,078,848		Bernstein	06/20/2000	G06F 17/00
		6,064,979		Perkowski	05/16/2000	G06F 17/60
		6,065,024		Renshaw	05/16/2000	G06F 17/30
		6,061,659		Murray	05/09/2000	G06F 17/60

### U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Intn'l Class / Sub Class
		Number	Kind Code (if known)			
		6,045,048		Wilz, Sr. et al.	04/04/2000	G06K 7/10
		6,044,218		Faustini	03/28/2000	G06F 009/44
		6,038,545		Mandeberg et al.	03/14/2000	G06F 17/60
		6,035,332		Ingrassia, Jr. et al.	03/07/2000	G06F 13/00
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**EXAMINER:** Initial if reference considered, whether or not citation is inconformance with MPEP 609; Draw line through citation if not in conformance not considered. Include copy of this form with next communication to applicant.

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**(INFORMATION DISCLOSURE STATEMENT – SECTION 9 PTO-1449)**

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